

RELAYS
221, 222, 223, 224, 225, 247, 248, 251, AND 252 TYPES
132- AND 133-TYPE INDUCTORS
AND CORRESPONDING AUTOMATIC ELECTRIC COMPANY APPARATUS
PIECE-PART DATA AND REPLACEMENT PROCEDURES

1. GENERAL

1.01 This section covers the information necessary for ordering parts to be used in the maintenance of 221-, 222-, 223-, 224-, 225-, 247-, 248-, 251-, and 252-type relays, 132- and 133-type inductors and corresponding AECo apparatus. It also covers approved procedures for replacing these parts.

1.02 This section is reissued to add relay codes and coils in Tables A and C, to add information for replacing armatures on AECo relays of early manufacture, and to add procedures for replacing parts not readily accessible on a switch. Detailed reasons for reissue will be found at the end of the section. Since this reissue covers a general revision, the arrows ordinarily used to indicate changes have been omitted.

1.03 Part 2 of this section covers the piece-part numbers and the corresponding names of the parts which it is practical to replace in the field in the maintenance of the relays and inductors covered by this section. No attempt should be made to replace parts not designated. Part 2 also contains explanatory figures showing the different parts. This information is called "*Piece-Part Data*."

1.04 Part 3 of this section covers approved procedures for the replacement of the parts covered in Part 2. This information is called "*Replacement Procedures*."

1.05 Modified 221- and 222-type relays are 221- and 222-type relays equipped with 1:1 ratio armatures.

2. PIECE-PART DATA

2.01 The figures included in this part show the various piece parts in their proper relation to the other parts. The piece-part numbers of the various parts are given together with the names of the parts. The part numbers given in

Fig. 1 to 6 inclusive, in Table A, and the second column of Table C are WEC Co piece-part numbers, and the names given are those listed by the WEC Co merchandise department. The part numbers given in Fig. 7 (except for two WEC Co piece-part numbers), Table D and the third and fourth columns of Table C are AECo part numbers. Where these names differ from those in general use in the field the latter names, in some cases, are shown in parentheses.

2.02 Information enclosed by parentheses () is not ordering information. It may be references to notes, parts referred to in other portions of the section and not considered replaceable, or where the name in general use in the field differs from the part name assigned by the manufacturer.

2.03 The tables in this part of the section cover the following information:

(a) **Table A** on Page 5 is a numerical list of WEC Co relay and inductor code numbers showing the part number of the WEC Co coil and a cross-reference item number to Table C. Table A is to be used for ordering coils for all WEC Co code relays and inductors (2.05 explains the use of the item reference to Table C).

(b) **Table B** on Page 11 is a numerical list of AECo code relays and inductors, for which equivalent WEC Co coils are available, showing an item number referring to Table C for coil ordering information. This table also shows in a third column the code number of the corresponding WEC Co relay where such exists (2.06 explains the procedure for ordering coils for AECo relays).

(c) **Table C** on Page 27 lists in numerical order the item numbers and the corresponding piece-part numbers for the various interchangeable coils. Item numbers below 1000 apply to WEC Co coils. Item numbers above

1000 apply to AEC Coils which do not have corresponding WEC Coils. When coils are ordered in accordance with this table, use the WEC Co coil number for item numbers below 1000 and use the "White Covering" coil number for item numbers above 1000. The other coil numbers are listed merely to assist in identifying interchangeable coils that may be on hand.

(d) **Table D** on Page 30 lists all AEC Coils in numerical order with a cross reference to item numbers in Table C for ordering information. The coils shown in Table D are interchangeable with any of the coils shown opposite the corresponding item number in Table C.

2.04 Some AEC Co R coded relays of early manufacture have armatures with longer lever arms than those on armatures of corresponding 221- and 222-type relays. Since the 221- and 222-type relay armatures are not satisfactory for use on these AEC Co relays, order armatures for these relays as covered in Fig. 1.

2.05 Procedure for Ordering Coils for a WEC Co Code Relay: Refer to Table A and order the coil listed opposite the relay code or inductor code. To determine what interchangeable AEC Co coils can be used in place of the WEC Co coil, note the item number opposite the coil number in Table A, and refer to the corresponding item in Table C.

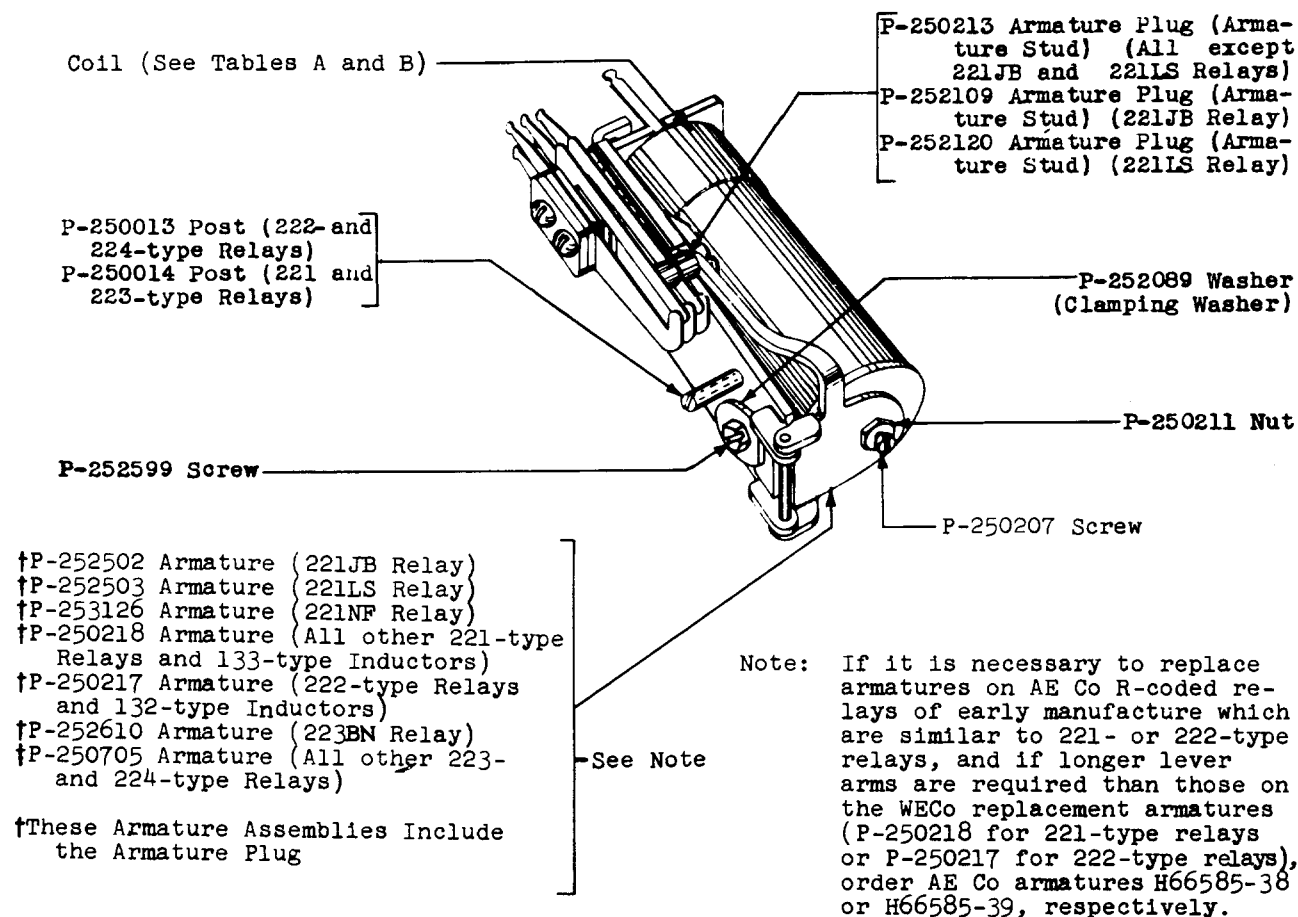


Fig. 1 – Parts of 221-, 222-, 223-, and 224-type Relays, 132- and 133-type Inductors, and Corresponding AEC Co Apparatus

2.06 Procedure for Ordering Coils for an AEC Co

Code Relay: Refer to Table B. If the relay or inductor is listed in Table B, proceed as outlined in (a) below. If the relay or inductor is not listed in Table B, proceed as outlined in (b) below.

(a) **AEC Co relays listed in Table B.** Refer to the corresponding item number in Table C and order the coil by the WEC Co number shown opposite that item number. The coil numbers shown in Table C opposite that item number can be used interchangeably.

(b) **AEC Co relays not listed in Table B.** Note the coil number specified under the desired relay code on the circuit requirement table. If that coil number is listed in Table D refer to the corresponding item number in

Table C and order the coil number listed in the column headed "WEC Co Coil No." If no coil number appears in the column headed "WEC Co Coil No.", order the coil number listed in the column headed "White Covering." If the coil number is not listed in Table D, order the coil by the number specified on the circuit requirement table.

(c) If the coil number is not shown on the circuit requirement table, order a coil for a particular code relay as follows: "Coil for RXXX-A1 relay."

2.07 In Tables A and B, certain relays are designated by an asterisk (*). For these relays it is recommended that no coil replacements be made if "zero" or "slight residual" (SL) is specified for the relays.

2.08 When ordering parts for replacement purposes give the piece-part number as well as the name of the part. Example: "P-250214 — Bushing." Do not refer to the BSP number or to any information shown in parentheses following the piece-part numbers.

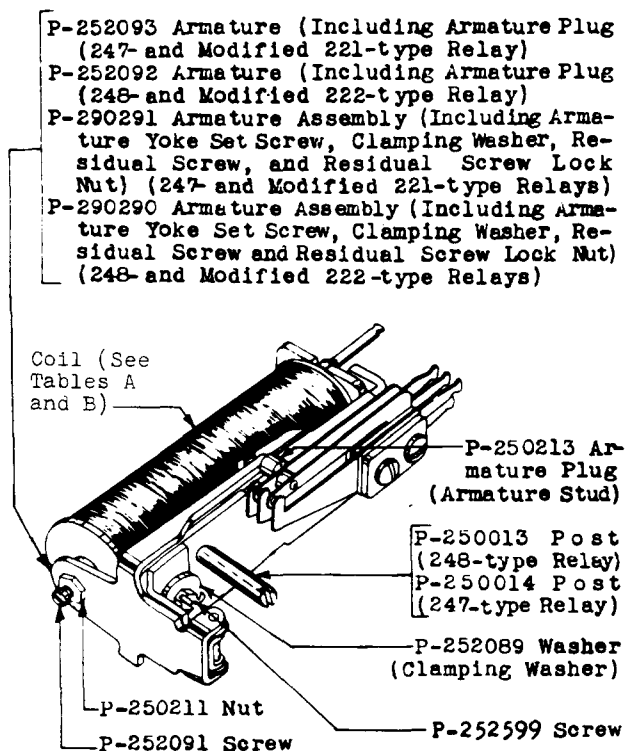


Fig. 2 — Parts for 247- and 248-type Relays, Modified 221- and 222-type, and Corresponding AEC Co Relays

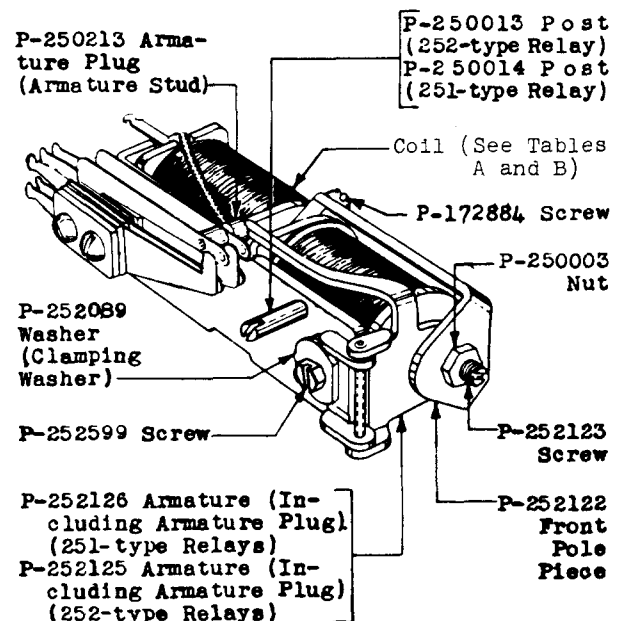


Fig. 3 — Parts of 251- and 252-type Relays

When ordering P-252552 Washer also order P-252551 Bushing where the bushing was not previously furnished

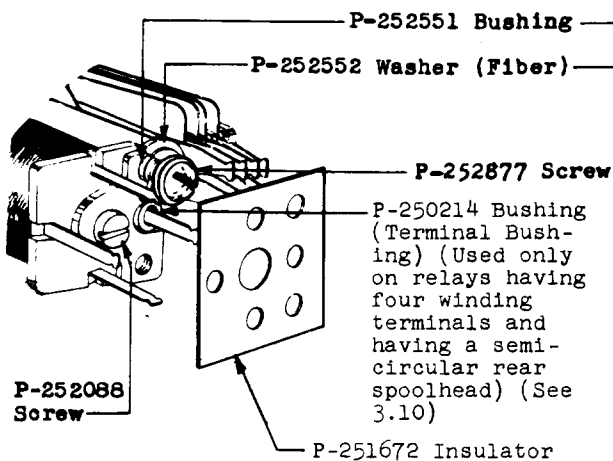


Fig. 4 - Parts Used in Mounting All Relays and Inductors, Except the 225 and Corresponding AEC Co Relays

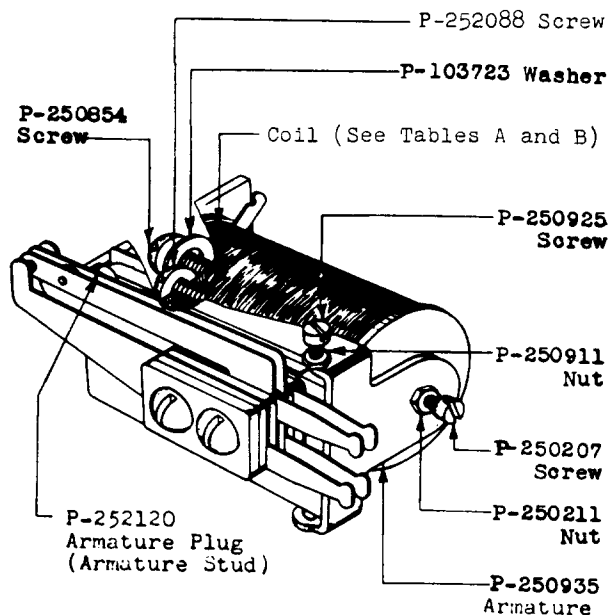


Fig. 6 - 225-type and Corresponding AEC Co Relays (Pivot-type Armature Bearings)

Armature Assembly

Note: When ordering any part of the armature assembly except the residual screw and lock nut and armature plug order an armature, armature plug and spring assembly, assembled for the particular code relay involved.

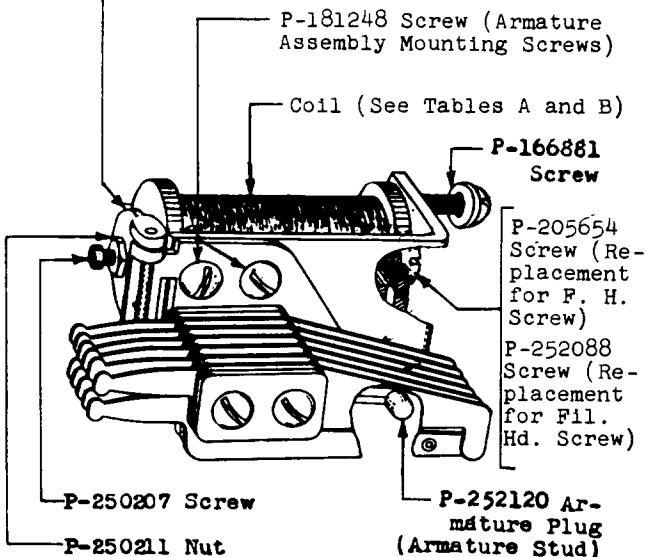


Fig. 5 - 225-type and Corresponding AEC Co Relays (Pin-type Armature Bearing)

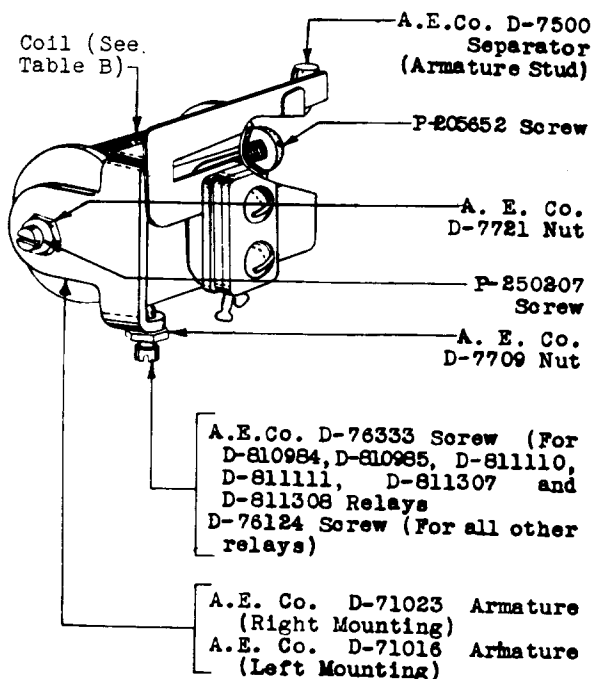


Fig. 7 - AEC Co Pivot-type Relays Used on Line Switches and Master Switches

TABLE A — NUMERICAL LIST OF WEC_o RELAY AND INDUCTOR CODE NUMBERS SHOWING PART NUMBERS FOR WEC_o COILS AND CROSS REFERENCE TO TABLE C FOR INTERCHANGEABLE AEC_o COILS [SEE 2.03 (a) AND 2.05]

WEC _o RELAY CODE NO.	WEC _o COIL NO.	ITEM NO. TABLE C P 27-30
221-TYPE RELAYS		
221A	P-251478	89
221B	P-252262	173
221C	P-250242	3
221D	P-252262	173
221E	P-252262	173
221G	P-252262	173
221H	P-252262	173
221J	P-252262	173
221K	P-252262	173
221L	P-252262	173
221M	P-251478	89
221P	P-251478	89
221R	P-251478	89
221T	P-250229	2
221U	P-250229	2
221W	P-252874	195
221Y	P-250229	2
221AA	P-250229	2
221AB	P-250229	2
221AC	P-250229	2
221AD	P-250738	8
*221AE	P-251053	35
221AF	P-251951	131
221AG	P-251951	131
221AH	P-251951	131
*221AJ	P-251951	131
221AK	P-250954	28
*221AL	P-250752	10
221AM	P-250746	9
221AN	P-250737	7
221AP	P-250737	7
221AR	P-250737	7
221AS	P-250737	7
221AT	P-250737	7
221AU	P-250792	13
221AW	P-250866	15
221AY	P-250873	19
221BA	P-251479	90
221BB	P-251479	90
221BC	P-250790	12
*221BD	P-252142	145
221BF	P-250242	3
221BH	P-250865	14

WEC _o RELAY CODE NO.	WEC _o COIL NO.	ITEM NO. TABLE C P 27-30
221-TYPE RELAYS		
221BJ	P-250720	5
221BK	P-250723	6
221BL	P-250778	11
221BM	P-250998	33
221BN	P-251287	59
221BR	P-250940	25
221BS	P-250940	25
221BT	P-250941	26
221BU	P-250738	8
221BY	P-250229	2
221CA	P-250229	2
221CB	P-250229	2
*221CC	P-251053	35
221CD	P-252263	174
221CE	P-252263	174
221CF	P-252263	174
221CG	P-252263	174
221CH	P-252263	174
221CJ	P-252263	174
221CK	P-252263	174
221CL	P-252263	174
221CM	P-250997	32
221CN	P-251951	131
221CP	P-251002	34
221CR	P-251083	42
*221CS	P-251053	35
221CT	P-250778	11
221CU	P-250737	7
*221CW	P-251053	35
221CY	P-251076	36
*221DA	P-251053	35
221DB	P-251108	44
221DC	P-251053	35
221DD	P-250866	15
221DE	P-250737	7
221DF	P-251163	47
221DG	P-250746	9
221DH	P-250229	2
*221DJ	P-251218	49
*221DK	P-251218	49
*221DL	P-251053	35
*221DM	P-251244	50
221DN	P-251083	42
221DP	P-251252	53

WEC _o RELAY CODE NO.	WEC _o COIL NO.	ITEM NO. TABLE C P 27-30
221-TYPE RELAYS		
*221DR	P-251244	50
*221DS	P-251244	50
*221DT	P-251244	50
*221DU	P-251244	50
*221DW	P-251244	50
221DY	P-250229	2
221EA	P-250737	7
221EB	P-251478	89
221EC	P-251248	52
221ED	P-252263	174
221EE	P-250229	2
221EF	P-252263	174
221EG	P-251478	89
221EH	P-250989	30
221EJ	P-250229	2
*221EK	P-251244	50
*221EL	P-251244	50
221EM	P-250229	2
221EN	P-250752	10
*221ER	P-251053	35
221ES	P-251292	60
221ET	P-250746	9
221EU	P-251479	90
221EW	P-251295	61
221EY	P-251163	47
221FA	P-251951	131
221FB	P-251314	62
221FC	P-251315	63
*221FD	P-251053	35
221FE	P-251322	65
*221FF	P-251083	42
221FG	P-250229	2
221FH	P-251077	37
221FJ	P-252263	174
221FK	P-251053	35
221FL	P-252263	174
*221FM	P-251350	68
*221FN	P-251053	35
*221FP	P-251053	35
221FR	P-250229	2
221FS	P-251478	89
221FT	P-252263	174
*221FU	P-251053	35
*221FW	P-251375	74

*See 2.07

TABLE A (Cont)

WEC _o RELAY CODE NO.	WEC _o COIL NO.	ITEM NO. TABLE C P 27-30
221-TYPE RELAYS		
221FY	P-251053	35
*221GA	P-251377	76
*221GB	P-251374	73
221GC	P-251478	89
*221GD	P-250865	14
221GE	P-251478	89
221GF	P-250229	2
221GH	P-250229	2
221GJ	P-250892	23
221GK	P-251478	89
221GL	P-250229	2
221GM	P-251292	60
221GN	P-251426	86
221GP	P-251080	40
221GR	P-251080	40
221GS	P-250892	23
221GT	P-251080	40
221GU	P-251431	87
221GW	P-250752	10
*221GY	P-251053	35
221HA	P-250752	10
221HB	P-250229	2
*221HC	P-251053	35
221HD	P-251481	92
221HE	P-250737	7
221HF	P-250720	5
*221HG	P-251244	50
221HH	P-250890	22
221HJ	P-250737	7
221HK	P-250229	2
221HL	P-252263	174
221HM	P-250865	14
221HN	P-251053	35
221HP	P-251666	110
221HR	P-252249	166
221HS	P-250866	15
221HT	P-251521	98
221HU	P-251522	99
221HW	P-251520	97
221HY	P-251504	96
221JA	P-251572	104
*221JB	P-250737	7
221JC	P-251666	110
221JD	P-251292	60
221JE	P-251703	112
221JF	P-250752	10

WEC _o RELAY CODE NO.	WEC _o COIL NO.	ITEM NO. TABLE C P 27-30
221-TYPE RELAYS		
221JG	P-251292	60
221JH	P-251479	90
221JJ	P-251383	81
221JK	P-251053	35
221JL	P-251585	107
221JM	P-250870	18
221JN	P-251494	95
221JP	P-251493	94
221JR	P-251163	47
221JS	P-250737	7
221JT	P-251830	115
221JU	P-251080	40
221JW	P-251168	48
221JY	P-251053	35
221KA	P-250737	7
221KB	P-251942	128
221KC	P-251905	123
221KD	P-251292	60
221KE	P-250720	5
221KF	P-252263	174
221KG	P-252246	164
221KH	P-250242	3
221KL	P-251942	128
221KM	P-251053	35
*221KN	P-251053	35
221KP	P-251080	40
*221KR	P-251244	50
221KS	P-251905	123
221KT	P-250865	14
221KU	P-251643	109
221KW	P-250737	7
221KY	P-251375	74
221LA	P-252062	135
221LB	P-251907	125
221LC	P-251908	126
221LD	P-251909	127
*221LE	P-251053	35
221LF	P-252072	138
221LG	P-251295	61
221LH	P-251426	86
*221LJ	P-251053	35
221LK	P-250229	2
221LL	P-250866	15
221LM	P-250229	2
221LN	P-250866	15
221LP	P-251080	40

WEC _o RELAY CODE NO.	WEC _o COIL NO.	ITEM NO. TABLE C P 27-30
221-TYPE RELAYS		
221LR	P-250865	14
*221LS	P-250737	7
221LT	P-250737	7
221LU	P-252142	145
221LW	P-252177	150
221LY	P-252188	153
221MA	P-252203	157
221MB	P-252189	154
221MC	P-252187	152
221MD	P-252263	174
221ME	P-252487	177
221MF	P-252565	180
221MG	P-252566	181
221MH	P-252569	182
221MJ	P-250890	22
221MK	P-252251	168
221ML	P-250229	2
221MM	P-252252	169
221MN	P-252238	159
221MP	P-250737	7
221MR	P-251244	50
221MS	P-251244	50
221MT	P-252177	150
221MU	P-252261	172
221MW	P-250229	2
221MY	P-250866	15
221NA	P-251643	109
221NB	P-251905	123
221NC	P-251375	74
221ND	P-252419	175
221NE	P-252419	175
221NF	P-252657	192
221NG	P-252659	193
221NH	P-252420	176
221NJ	P-252421	197
221NK	P-251478	89
221NL	P-250242	3
221NN	P-252668	218
221NP	P-250790	12
221NR	P-252262	173
221NS	P-252262	173
221NT	P-252660	171
221NU	P-252660	171
221NW	P-251079	39
221PA	P-250737	7
221PB	P-253215	219

*See 2.07

TABLE A (Cont)

WEC _o RELAY CODE NO.	WEC _o COIL NO.	ITEM NO. TABLE C P 27-30
221-TYPE RELAYS		
221PC	P-252263	174
221PD	P-252665	215
221PE	P-252667	217
221PF	P-252874	195
	or P-250229	2
221PG	P-250997	32
221PH	P-252666	216
221PJ	P-252429	205
221PK	P-251244	50
221PL	P-251248	52
221PM	P-251263	55
221PN	P-250242	3
221FAA	P-252248	165
221FAB	P-252248	165
221FAC	P-252151	147
221FAD	P-252151	147
221FAE	P-252186	151
221FAF	P-252151	147
221FAG	P-252202	156
221FAH	P-252186	151
221FAJ	P-252151	147
221FAK	P-252488	178
221FAL	P-252518	179
221FAM	P-252488	178
221FAN	P-252186	151
D-89593	P-251079	39
D-90770	—	—
D-90771	—	—
D-96329	—	—
D-97944	—	1061
D-159566	P-250790	12
222-TYPE RELAYS		
*222A	P-251053	35
222B	P-250229	2
222C	P-250955	29
222D	P-252262	173
222E	P-251079	39
222F	P-251079	39
222G	P-251079	39
222H	P-251079	39
222J	P-252868	194
222K	P-251079	39
222L	P-251079	39
*222R	P-251079	39

WEC _o RELAY CODE NO.	WEC _o COIL NO.	ITEM NO. TABLE C P 27-30
222-TYPE RELAYS		
222S	P-251079	39
222T	P-251079	39
222W	P-251478	89
222Y	P-251478	89
222AA	P-251478	89
222AC	P-250229	2
222AD	P-250229	2
222AF	P-250229	2
222AG	P-250229	2
222AH	P-250229	2
222AJ	P-250229	2
222AK	P-250229	2
222AL	P-250229	2
222AM	P-250229	2
222AN	P-250229	2
222AP	P-250738	8
*222AR	P-251053	35
*222AS	P-251053	35
*222AT	P-251053	35
*222AU	P-251053	35
*222AW	P-251053	35
*222AY	P-251053	35
222BA	P-251053	35
222BB	P-251078	38
222BC	P-251078	38
222BD	P-251078	38
222BE	P-250746	9
222BF	P-250746	9
222BH	P-250892	23
222BJ	P-251080	40
222BK	P-250873	19
222BL	P-250874	20
222BM	P-250790	12
*222BN	P-252142	145
222BP	P-250868	17
222BR	P-250720	5
222BS	P-250720	5
222BT	P-250870	18
222BU	P-250778	11
222BW	P-250953	27
*222BY	P-251081	41
222CA	P-250867	16
222CB	P-250229	2
222CC	P-250229	2
222CD	P-252868	194
*222CE	P-251053	35

WEC _o RELAY CODE NO.	WEC _o COIL NO.	ITEM NO. TABLE C P 27-30
222-TYPE RELAYS		
222CF	P-250955	29
222CG	P-251079	39
222CH	P-250229	2
222CJ	P-250229	2
222CK	P-252263	174
222CL	P-250996	31
222CM	P-251084	43
222CN	P-251077	37
*222CP	P-251084	43
222CT	P-250229	2
222CU	P-250229	2
*222CW	P-251053	35
222CY	P-251053	35
222DA	P-250229	2
222DB	P-250229	2
222DC	P-250737	7
222DD	P-250892	23
222DE	P-250229	2
222DF	P-251168	48
222DG	P-252868	194
222DH	P-251108	44
222DJ	P-251079	39
222DK	P-250752	10
222DL	P-250752	10
222DM	P-250229	2
222DN	P-250229	2
222DP	P-251079	39
222DR	P-251079	39
222DS	P-252868	194
222DT	P-252868	194
222DU	P-251478	89
222DW	P-251478	89
222DY	P-251267	56
222EA	P-251478	89
222ED	P-251280	57
222EE	P-251263	55
222EF	P-250229	2
222EG	P-250752	10
222EH	P-251053	35
222EJ	P-250229	2
222EK	P-250229	2
222EL	P-251053	35
222EM	P-251318	64
222EN	P-250229	2
222EP	P-251079	39
222ER	P-251079	39

*See 2.07

TABLE A (Cont)

WEC _o RELAY CODE NO.	WEC _o COIL NO.	ITEM NO. TABLE C P 27-30
222-TYPE RELAYS		
*222ES	P-251369	72
222ET	P-250229	2
222EU	P-250229	2
222EW	P-251340	66
222EY	P-251389	85
222FA	P-251263	55
222FB	P-251363	71
222FC	P-251340	66
222FD	P-250229	2
222FE	P-252868	194
222FF	P-251053	35
*222FG	P-251376	75
*222FH	P-251356	69
222FJ	P-250229	2
222FK	P-251383	81
222FL	P-250229	2
222FM	P-251053	35
*222FN	P-251374	73
*222FP	P-251053	35
*222FR	P-251374	73
*222FS	P-251053	35
222FT	P-251385	83
*222FU	P-251369	72
*222FW	P-251374	73
222FY	P-250720	5
222GA	P-250229	2
222GB	P-251493	94
222GC	P-251494	95
222GD	P-250229	2
222GE	P-251376	75
222GF	P-250229	2
222GG	P-251053	35
222GH	P-250229	2
222GJ	P-251527	101
222GK	P-250229	2
222GL	P-251267	56
222GM	P-251478	89
222GN	P-251248	52
222GP	P-251079	39
222GR	P-250954	28
*222GS	P-251053	35
222GT	P-251670	111
222GU	P-251080	40
222GW	P-251478	89
222GY	P-251547	103
*222HA	P-251586	108

WEC _o RELAY CODE NO.	WEC _o COIL NO.	ITEM NO. TABLE C P 27-30
222-TYPE RELAYS		
222HB	P-251771	113
222HC	P-251053	35
222HD	P-251827	114
222HE	P-251830	115
222HF	P-251380	78
222HG	P-251263	55
222HH	P-250229	2
222HJ	P-250229	2
222HK	P-250720	5
222HL	P-250229	2
222HM	P-252245	163
222HN	P-251906	124
222HP	P-250737	7
222HR	P-252250	167
222HS	P-251080	40
222HT	P-252023	132
*222HU	P-251053	35
222HW	P-252025	134
222HY	P-250954	28
222JA	P-251315	63
222JB	P-251108	44
222JC	P-251263	55
222JD	P-250229	2
222JE	P-251643	109
222JF	P-252063	136
222JG	P-251053	35
*222JH	P-251053	35
222JJ	P-252121	141
222JK	P-250866	15
222JL	P-252868	194
222JM	P-250229	2
222JN	P-252142	145
222JP	P-251426	86
222JR	P-251944	130
222JS	P-252570	183
222JT	P-250865	14
222JU	P-251168	48
222JW	P-251478	89
222JY	P-250229	2
222KA	P-252239	160
222KB	P-250229	2
222KC	P-250229	2
222KD	P-251080	40
222KE	P-251053	35
222KF	P-251670	111
222KG	P-252652	187

WEC _o RELAY CODE NO.	WEC _o COIL NO.	ITEM NO. TABLE C P 27-30
222-TYPE RELAYS		
222KH	P-250954	28
222KJ	P-251080	40
222KK	P-252653	188
222KL	P-252656	191
222KM	P-252419	175
222KN	P-252419	175
222KP	P-252419	175
222KR	P-252419	175
222KS	P-252419	175
*222KT	P-251168	48
222KU	P-252422	198
222KW	P-252423	199
222KY	P-250720	5
222LA	P-252424	200
222LB	P-250229	2
222LC	P-252419	175
222LD	P-254710	202
	P-252874	195
222LE	or P-250229	2
222LF	P-11A088	221
222LH	P-251478	89
222LJ	P-251478	89
222LK	P-251079	39
222LL	P-252661	212
222LM	P-251267	56
222LN	P-252661	212
222LP	P-252428	204
222LS	P-251267	56
222LT	P-250229	2
222LU	P-251267	56
	P-252868	194
222LW	or P-251079	39
222LY	P-252658	211
222MA	P-251263	55
222MB	P-251218	49
222MC	P-11A088	221
222MD	P-252431	207
222PA	P-251862	122
222PB	P-251862	122
D-90538	—	—
D-90550	P-251944	130
D-90551	P-251053	35
D-91041	P-251267	56
D-96328	P-251951	131

*See 2.07

TABLE A (Cont)

WEC _o RELAY CODE NO.	WEC _o COIL NO.	ITEM NO. TABLE C P 27-30
222-TYPE RELAYS		
D-97945	—	1061
D-99887	P-251218	49
223-TYPE RELAYS		
223A	P-252874	195
223B	P-250890	22
223C	P-250720	5
223D	P-251478	89
223E	P-251478	89
*223F	P-250865	14
223G	P-251340	66
223H	P-250229	2
223J	P-250229	2
223K	P-251379	77
223L	P-251380	78
223M	P-250229	2
223N	P-250892	23
223P	P-250892	23
*223R	P-251053	35
223S	P-251478	89
223T	P-251447	88
223U	P-250892	23
223W	P-250892	23
223Y	P-250866	15
223AA	P-251053	35
223AB	P-251526	100
223AC	P-251380	78
223AD	P-251542	102
223AE	P-250229	2
223AF	P-250890	22
223AG	P-251263	55
223AH	P-250229	2
223AJ	P-251643	109
223AK	P-251263	55
223AL	P-251263	55
223AM	P-250229	2
223AN	P-251447	88
223AP	P-250892	23
223AR	P-250229	2
223AS	P-250752	10
223AT	P-251836	120
223AU	P-251295	61
223AW	P-251447	88
223AY	P-251834	118
223BA	P-251831	116
223BB	P-251835	119

WEC _o RELAY CODE NO.	WEC _o COIL NO.	ITEM NO. TABLE C P 27-30
223-TYPE RELAYS		
223BC	P-251833	117
223BD	P-251859	121
223BE	P-251526	100
223BF	P-250890	22
223BG	P-250229	2
223BH	P-251263	55
223BJ	P-250890	22
223BK	P-250890	22
223BL	P-251944	130
223BM	P-250737	7
223BN	P-250229	2
223BP	P-252071	137
223BS	P-252146	146
223BT	P-250229	2
223BU	P-250866	15
223BW	P-252176	149
223BY	P-250229	2
223CA	P-252176	149
223CB	P-250865	14
223CC	P-252205	158
223CD	P-251374	73
223CE	P-251526	100
223CF	P-250737	7
*223CG	P-250865	14
223CH	P-252176	149
223CJ	P-250865	14
*223CK	P-250865	14
223CL	P-250229	2
223CM	P-252571	184
223CN	P-252260	171
223CP	P-250892	23
223CR	P-252259	170
223CS	P-250229	2
223CT	P-252571	184
223CU	P-250229	2
223CW	P-250229	2
223CY	P-250242	3
223DA	P-252419	175
223DB	P-252419	175
223DC	P-252874	195
223DD	P-250865	14
223DE	P-11A087	220
223DF	P-11A470	222
223DG	P-251547	103
223DH	P-252434	210
D-97463	—	1060

WEC _o RELAY CODE NO.	WEC _o COIL NO.	ITEM NO. TABLE C P 27-30
224-TYPE RELAYS		
224A	P-250229	2
224B	P-250229	2
224C	P-250229	2
224D	P-250713	4
224E	P-250713	4
224F	P-250713	4
224G	P-250713	4
224H	P-250713	4
224J	P-250880	21
224K	P-250229	2
224L	P-250229	2
224M	P-250229	2
224N	P-250892	23
224P	P-251128	45
224R	P-251382	80
224S	P-251267	56
224T	P-251267	56
224U	P-251478	89
224W	P-250890	22
*224Y	P-251356	69
224AA	P-250713	4
224AB	P-251382	80
224AC	P-251342	67
224AD	P-250867	16
*224AE	P-251384	82
224AF	P-251382	80
224AG	P-251381	79
224AH	P-251385	83
224AJ	P-251295	61
224AK	P-250229	2
224AL	P-251381	79
224AM	P-251447	88
224AN	P-251382	80
224AP	P-250229	2
224AR	P-251267	56
224AS	P-250229	2
224AT	P-251295	61
224AU	P-251480	91
224AW	P-251573	105
224AY	P-251480	91
224BA	P-251480	91
224BB	P-251382	80
224BC	P-250890	22
224BD	P-251447	88
224BE	P-251447	88
224BF	P-251943	129

*See 2.07

TABLE A (Cont)

WEC _o RELAY CODE NO.	WEC _o COIL NO.	ITEM NO. TABLE C P 27-30
224-TYPE RELAYS		
224BG	P-252024	133
224BH	P-251295	61
224BJ	P-251447	88
224BK	P-250229	2
224BL	P-251447	88
224BM	P-250229	2
224BN	P-252571	184
224BP	P-252571	184
224BR	P-250713	4
224BS	P-251480	91
224BT	P-250713	4
224BU	P-252571	184
224BW	P-252651	186
224BY	P-252571	184
224CA	P-252654	189
224CB	P-251447	88
224CC	P-252651	186
224CD	P-251447	88
224CE	P-251382	80
224CF	P-252427	201
224CG	P-251447	88
224CJ	P-252427	201
224CK	P-252432	208
224CL	P-252430	206
224CM	P-252433	209
225-TYPE RELAYS		
225A	P-250910	24
225B	P-250910	24
225C	P-250910	24
225D	P-250910	24
225E	P-251262	54
225F	P-251358	70

WEC _o RELAY CODE NO.	WEC _o COIL NO.	ITEM NO. TABLE C P 27-30
225-TYPE RELAYS		
225G	P-251386	84
225H	P-250910	24
225J	P-251482	93
225K	P-250910	24
225L	P-250910	24
225M	P-250910	24
225N	P-251584	106
225P	P-250910	24
225R	P-252174	148
225S	P-252241	161
225T	P-250910	24
225U	P-485096	203
225W	P-250910	24
225Y	P-250910	24
225AA	P-250910	24
225AB	P-252664	214
225AC	P-252663	213
247-TYPE RELAYS		
247A	P-252099	139
247B	P-252099	139
247C	P-252928	196
247D	P-252100	140
247E	P-252100	140
247F	P-252100	140
247G	P-252099	139
247H	P-252928	196
247J	P-252928	196
247K	P-252928	196
247L	P-252928	196
247M	P-252928	196
247N	P-252928	196
247S	P-252242	162

WEC _o RELAY CODE NO.	WEC _o COIL NO.	ITEM NO. TABLE C P 27-30
247-TYPE RELAYS		
247T	P-252242	162
248-TYPE RELAYS		
248A	P-252099	139
248B	P-252099	139
248C	P-252099	139
248D	P-252099	139
248E	P-252099	139
248F	P-252099	139
248G	P-252099	139
248H	P-252242	162
248J	P-252099	139
248K	P-252655	190
248L	P-252099	139
248M	P-252099	139
251- AND 252-TYPE RELAYS		
251A	P-252131	143
251B	P-252132	144
251C	P-252198	155
251D	P-252130	142
251E	P-252130	142
252A	P-252130	142
252B	P-252132	144
INDUCTORS		
132A	P-251951	131
132B	P-251286	58
132C	P-251478	89
132D	P-250792	13
133A	P-251152	46
133B	P-251951	131
133C	P-251426	86

TABLE B — NUMERICAL LIST OF AEC_o RELAY AND INDUCTOR CODE NUMBERS SHOWING CROSS REFERENCE TO TABLE C FOR COIL NUMBERS AND SHOWING CORRESPONDING WEC_o CODE NUMBER [SEE 2.03 (b) AND 2.06]

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.	AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.	AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R1-A1	89	—	R49-B9	65	221FE	R99-A4	131	—
R1-A3	145	—	R49-C2	97	221HW	R99-A5	90	—
R2-A1	131	—	R49-C7	50	—	R99-B1	10	—
R5-A2	131	—	R50-A1	2	—	R99-B1A	10	—
R5-A3	7	—	R50-A1A	2	—	R99-B8	165	221FAA
R5-A4	89	—	R53-A2	131	—	R99-C1	150	221LW
R6-A2	131	—	R53-A6	2	—	R103-A4	29	—
R18-A2	2	—	R55-A1	89	—	R109-A2	89	—
*R18-A6	35	—	R56-A2	29	—	R109-A4	10	—
R18-B1	7	—	R56-A3	7	—	R109-A5	15	—
R18-B2	1	—	R58-A1	29	—	R109-A6	90	—
R18-B4	23	—	R58-A2	35	—	R111-A1	2	—
R18-B8	38	—	*R60-A1	29	—	R113-A1	7	—
R18-B9	29	—	*R60-A2	35	—	R113-A2	35	—
R18-C2	89	—	R60-A3	39	—	R116-A2	17	—
R18-C6	13	—	R60-A4	5	—	R117-A1	89	—
R18-C7	28	—	R64-A2	2	—	R117-A2	2	—
R18-D1	145	—	R65-A1	131	—	R117-A4	94	221JP
R18-D1A	145	—	*R66-A1	35	—	R117-A5	40	221KP
R19-A1	131	—	R69-A4	2	—	*R121-A2	35	—
R20-A1	131	—	R71-A1	126	—	R128-A3	29	—
R20-A2	10	222DL	*R71-A2	7	—	R129-A1	1	—
R25-A1	38	—	R72-A1	89	—	R129-A3	174	221HL
R25-A4	2	—	R73-A1	74	—	R130-A1	2	—
R25-A4A	2	—	R74-A1	29	—	R130-A2	131	—
R25-A5	145	—	R74-A3	7	—	R131-A4	2	—
R25-A6	15	—	*R76-A1	29	—	R132-A2	3	—
R25-A7	7	—	R78-A1	29	—	R133-A1	131	—
R25-A9	10	221GW	R78-A2	1	—	R134-A1	2	—
R29-A2	8	—	R78-A3	35	—	R135-A1	35	—
R30-A1	2	—	R78-A4	2	—	R137-A1	131	—
R30-A3	55	—	R78-A5	126	—	R140-A3	2	—
R34-A3	29	—	R78-A6	9	—	R141-A1	1	—
R44-A1	10	—	R80-A1	8	—	R143-A1	17	—
R44-A3	2	—	R87-A1	9	—	R144-A1	2	—
R44-A5	8	—	R87-A2	131	—	R146-A1	131	—
R45-A1	2	—	R91-A1	131	—	R148-A1	89	—
R45-A5	15	—	R92-A1	2	—	R148-A3	2	—
R45-A6	10	—	R94-A2	131	—	R148-A7	28	—
R47-A5	29	—	R95-A1	2	—	R148-A7A	28	—
R47-A6	35	—	R99-A1	89	221A	R148-A7B	28	222GR
R49-A1	10	—	R99-A1A	89	—	R148-B1	131	—
R49-B1	8	—	R99-A1B	89	—	R148-B2	15	—
R49-B3	2	—	R99-A3	15	221DD	R148-B5	18	—
R49-B8	34	221CP	R99-A3A	15	—	R148-B6	55	—

*See 2.07

TABLE B (Cont)

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.	AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.	AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R148-B6A	55	—	R195-A2	89	—	R206-A4	44	222DH
R148-B7	122	—	R195-A3	2	—	R207-A1	1	—
R152-A1	74	—	R195-A5	22	—	R207-A2	7	—
R152-A4	39	—	*R196-A1	35	222EL	*R207-A2A	7	—
R154-A1	35	—	R196-A1A	35	—	R207-A3	30	—
R155-A4	3	—	*R196-A1B	35	—	*R207-A4	50	221HG
R158-A1	9	—	*R196-A1C	35	222EH	*R208-A1	35	222AR
R160-A1	2	—	*R196-A1D	35	222CE	R208-A1A	35	—
R162-A2	28	—	*R196-A2	29	—	R208-A1B	35	—
R162-A3	29	—	R196-A3	154	—	*R208-A1C	35	222HU
R164-A2	2	—	R196-A4	74	—	R208-A2	29	222CF
R164-A2A	2	—	R196-A9	11	—	*R208-A2A	29	—
R164-A3	7	—	*R196-B1	29	—	R208-A5	7	—
R164-A6	35	—	R196-B2	49	D-99887	R208-A6	1	—
R164-A6A	35	—	R197-A1	2	—	R208-B3	74	—
R164-B6	89	—	R198-A1	39	—	R208-B4	39	—
R164-B7	29	—	R198-A1A	39	—	R209-A1	173	221E
R165-A1	2	—	R198-A1B	39	222DS	R209-A3	7	—
*R168-A1	35	—	R200-A1	2	222B	*R209-A4	74	—
R169-A1	131	—	R200-A1A	2	222CC	*R209-A4A	74	221FW
R171-A1	89	—	R200-A1B	2	222CJ	R209-A5	29	—
R171-A2	2	—	R200-A1C	2	—	*R209-A7	35	—
*R172-A1	29	—	R200-A2	16	—	R209-B1	39	—
R172-A1A	29	—	R201-A5	2	—	R209-B4	11	—
R172-A2	7	—	R201-A6	3	221C	R209-B9	145	—
*R172-A3	35	—	R202-A2	2	—	R209-C2	174	221CL
R172-A3A	35	—	R202-A2A	2	—	R209-C4	2	221CA
R172-A4	39	222S	R202-A3	22	—	R209-C6	127	221LD
R172-A6	1	—	R202-A4	89	—	R210-A2	2	—
R172-A7	31	222CL	R202-A4A	89	—	R211-A2	7	221DE
*R172-A8	75	222FG	R202-A7	15	—	*R211-A3	50	221DS
R172-A9	141	222JJ	R202-A8	28	—	R212-A1	89	—
R174-A1	29	—	R202-B3	9	—	R212-A2	2	—
R178-A1	2	—	R202-B3A	9	—	R212-A4	22	—
R180-A1	39	—	R202-B7	16	—	R213-A1	7	—
R185-A1	35	—	R203-A1	1	—	R214-A1	39	—
R186-A1	35	—	R203-A3	7	221AP	R214-A1A	39	—
R187-A1	1	—	*R203-A3A	7	—	R215-A1	2	—
R187-A3	7	—	R203-A4	29	—	*R216-A1	35	222AS
R187-A4	29	—	*R203-A6	50	221DU	R216-A1A	35	—
R190-A2	2	—	R203-A8	174	221ED	R216-A1B	35	—
R190-A3	22	—	R204-A1	89	—	R216-A1C	35	—
R191-A1	13	—	R204-A2	2	—	*R216-A3	29	—
R192-A1	7	—	R204-A3	23	—	*R216-A5	5	—
R193-A7	2	—	R204-A9	31	—	R217-A1	55	—
R194-A1	35	—	R205-A1	2	—	R217-A3	2	221DY
R195-A1	15	—	R206-A3	56	—	R217-A6	89	—

*See 2.07

TABLE B (Cont)

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R217-A8	131	—
R217-B2	22	—
R217-B6	60	221JD
R221-A1	1	—
R223-A1	35	—
R224-A2	131	—
R228-A1	2	—
R228-A3	15	—
R228-A4A	48	222DF
R228-A5	9	—
R228-A5A	9	—
R228-A6	18	222BT
R228-A6A	18	—
R229-A2	10	—
R229-A2A	10	—
R229-A4	131	—
R229-A5	90	—
R230-A1	74	—
R232-A1	131	—
R235-A1	89	—
R235-A3	2	—
R235-A3A	2	—
R235-A6	16	—
R237-A1	1	—
*R237-A2	7	—
*R237-A3	29	—
R237-A4	145	—
R239-A1	2	—
R239-A1A	2	221GH
R240-A1	89	—
R243-A4	29	—
R246-A2	2	—
R246-A2A	2	—
*R248-A1	35	222AY
*R248-A1A	35	—
R248-A2	154	—
*R250-A1	35	—
R251-A3	1	—
R251-A4	30	—
R252-A1	2	—
R252-A2	131	—
R259-A1	89	—
R269-A1	2	—
R269-A2	145	—
R272-A1	2	—
*R276-A1	35	—
R276-A2	1	—

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R276-A3	145	—
R276-A4	29	—
*R276-A4A	29	—
R277-A1	2	—
R278-A2	2	222AC
R278-A3	28	—
R278-A4	124	222HN
R280-A1	29	—
R284-A1	2	—
R286-A1	1	—
R287-A1	131	—
*R288-A1	35	—
R292-A1	1	—
R292-A2	7	—
R292-A3	29	—
R293-A1	131	—
R296-A1	7	—
*R296-A2	35	—
R296-A3	29	—
*R296-A5	126	—
R301-A2	90	221EU
R301-A3	138	221LF
R302-A1	39	—
R304-A2	2	222AK
R304-A4	16	222CA
R306-A1	29	—
R316-A1	2	—
R316-A2	79	—
R318-A1	29	—
R319-A1	28	—
R319-A2	89	—
R323-A1	89	—
R323-A2	2	—
R323-A3	29	—
R325-B1	23	—
*R326-A1	35	—
R326-A2	74	—
R327-A1	29	—
R330-A1	2	—
R331-A1	2	—
R335-A1	1	—
R337-A1	9	—
R337-A4	2	221U
R339-A1	2	—
R339-A5	29	—
R339-A6	112	221JE
R340-A1	29	—

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R341-A1	29	—
R341-A2	2	—
R341-A6	1	—
R341-A7	131	—
R341-A8	35	—
*R341-A8A	35	—
R341-A9	7	—
R341-B1	89	—
R341-B1A	89	221GC
R341-B6	38	—
R341-E1	22	—
R341-E4	10	—
R341-E6	16	—
R341-E7	23	—
R341-E8	174	221FJ
R341-E8A	30	—
R341-E9	20	—
R341-F3	61	221LG
R342-A1	74	—
R344-A1	29	—
R345-A1	29	—
R345-A3	1	—
R345-A5	35	—
R345-A8	145	—
R346-A2	2	—
R347-A1	1	—
R347-A2	7	—
R347-A3	35	—
*R347-A4	50	—
*R350-A1	35	—
R350-A2	29	—
R351-A2	1	—
R351-A3	2	—
R351-A3A	2	—
R351-A6	28	—
R351-A7	29	—
R351-B2	7	—
R351-B4	13	—
R351-B7	35	—
R351-B7A	35	221FY
R351-B8	131	—
R351-C4	89	—
R351-D1	30	—
R352-A1	126	—
R353-A1	2	—
R354-A1	7	—
*R354-A2	35	—

*See 2.07

TABLE B (Cont)

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.	AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.	AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R354-A3	74	—	*R362-A1	35	—	R382-A1	2	—
R355-A1	2	221T	R363-A3	2	—	R383-A1	1	—
R355-A4	89	—	R363-A3A	2	—	*R384-A1	35	—
R356-A1	7	—	R363-A5	89	—	R385-A1	2	—
R357-A3	2	—	R363-A5A	89	—	R386-A1	2	—
R357-A4	131	—	R363-A5B	89	221M	R387-A1	7	—
R357-A5	89	—	R363-A6	131	221AF	R387-A2	1	—
R357-A6	15	—	R363-A6A	131	—	R388-A1	2	—
R357-A8	16	—	R363-B5	15	—	R389-A1	1	—
R357-A9	28	—	R363-B5A	15	221HS	R390-A1	10	—
R357-B1	9	—	R363-B7	10	—	R391-A1	131	—
R357-B6	22	—	R363-C2	9	—	R392-A1	1	—
R357-B7	22	—	R363-D1	8	221BU	R394-A1	39	—
R357-C2	60	221GM	R363-E2	22	—	*R396-A1	35	—
R357-C3	110	221HP	R363-E6	16	—	R396-A3	7	—
R357-C4	92	221HD	R363-F3	37	—	R398-A1	131	—
R358-A1	35	—	R363-F3A	37	221FH	R399-A2	89	—
R359-A1	16	—	R363-F7	145	—	R400-A1	29	—
R359-A3	8	221AD	*R363-F9	76	221GA	R401-A1	2	—
R359-A7	2	—	R363-G1	98	221HT	R403-A1	1	—
R359-A7A	2	221Y	R363-G2	152	221MC	R403-A3	35	—
R359-A8	89	—	R365-A3	29	—	R403-A4	29	—
R359-A8A	89	—	R367-A2	145	—	*R403-A5	50	221DM
R359-A8B	89	—	*R368-A1	35	—	R408-A1	2	—
R359-A8C	89	—	R371-A1	29	—	R409-A1	145	—
R359-B1	13	221AU	R371-A6	1	—	R409-A2	2	—
R359-B1A	13	—	R371-A6A	1	—	R410-A1	7	—
R359-B3	10	—	R371-A8	35	221DC	R411-A1	1	—
R359-B3A	10	—	R371-A8A	35	—	R413-A2	1	—
R359-B3B	10	—	*R371-A8B	35	221CW	R414-A1	2	—
R359-B8	90	—	R371-B3	74	—	R416-A1	89	—
R359-C2	9	—	R371-B7	7	—	*R418-A1	35	—
R359-C2A	9	—	R371-B8	38	—	R419-A2	7	—
R359-C2B	9	—	R371-C9	11	—	R425-A1	2	—
R359-C7	55	—	R371-D6	30	—	R432-A1	2	—
R359-C9	131	—	*R371-D7	73	221GB	R434-A1	29	—
R359-C9A	131	—	R371-D8	115	221JT	R436-A1	38	—
R359-D2	15	—	R371-D9	131	221CN	R437-A1	2	—
R359-D3	28	—	R371-E1	1061	D-97944	R439-A1	29	—
R359-E4	23	—	R371-E3	169	221MM	R440-A1	74	—
R359-F4	31	—	R371-E4	159	221MN	R442-A1	131	—
R359-H1	168	221MK	R372-A1	55	—	R442-A2	39	—
R359-J6	33	221BM	R372-A2	2	—	*R444-A1	74	—
R359-K2	145	—	*R374-A1	35	—	R445-A3	131	—
*R359-K3	14	—	*R376-A1	35	—	R447-A1	131	—
R359-K4	81	221JJ	R379-A1	28	—	R447-A2	89	—
R360-A1	131	—	R380-A1	2	—	R454-A1	39	—

*See 2.07

TABLE B (Cont)

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R454-A1A	39	—
R454-A3	39	—
R455-A1	2	—
R457-A1	29	—
R458-A1	2	—
R462-A1	2	—
R464-A1	35	—
R466-A1	89	—
R466-A4	2	222EJ
R468-A1	2	—
R469-A1	2	—
R471-A1	2	—
R472-A2	10	—
R472-A4	2	—
R472-A4A	2	—
R472-A5	22	—
R472-A6	28	—
R472-A8	131	—
R472-A9	16	—
R475-A1	10	—
*R478-A1	35	—
R482-A3	2	—
R485-A1	13	—
R486-A1	2	—
*R487-A1	7	—
*R488-A1	35	—
R492-A1	7	—
R492-A2	35	—
R493-A1	29	—
R494-A2	17	222BP
R498-A1	74	—
R499-A1	29	—
R501-A1	7	—
R503-A1	2	—
R504-A2	35	—
R507-A1	131	—
R508-A1	29	—
R511-A1	7	221AS
*R511-A1A	7	—
*R511-A2	50	221DT
R512-A1	35	—
R515-A1	89	—
R515-A2	131	—
R518-A1	2	—
R518-A3	29	—
R519-A1	131	—
R522-A1	2	—

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
*R524-A1	35	—
R525-A1	131	—
*R526-A1	35	—
R533-A1	39	—
R538-A1	39	—
R540-A1	29	—
R540-A2	1	—
R541-A1	131	—
R544-A1	9	—
R549-A1	2	—
R550-A1	2	—
*R552-A1	35	222AU
R552-A1A	35	—
R553-A1	131	—
R553-A2	2	—
R555-A1	2	221DH
R555-A3	22	—
R556-A1	2	—
R556-A2	131	—
R557-A1	10	—
R559-A1	29	—
R559-A2	35	—
R560-A2	17	—
R563-A1	39	—
R563-A1A	39	—
R565-A1	89	—
R565-A3	2	—
*R568-A2	35	—
R568-A4	74	—
R570-A1	2	—
R572-A3	131	—
R572-A5	22	—
R572-A6	2	—
R574-A1	35	—
R575-A1	89	—
R576-A2	2	—
R577-A1	2	—
*R578-A1	35	—
*R580-A1	35	—
*R580-A2	74	—
R580-A3	29	—
*R581-A1	1	—
R584-A3	2	—
R586-A1	2	—
R588-A1	35	—
R593-A1	7	—
R593-A4	29	—

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R593-A5	35	—
R596-A1	89	—
R600-A1	39	—
*R602-A1	35	—
R604-A1	39	—
R605-A2	2	—
R605-A3	13	—
R606-A1	2	—
R607-A1	39	—
R608-A1	2	—
R608-A5	40	222GU
R609-A4	22	—
R610-A1	10	—
R610-A5	2	222AN
R610-A9	131	—
R611-A1	2	—
R613-A1	7	—
R614-A2	95	222GC
R616-A1	5	—
*R616-A2	35	—
*R617-A1	7	—
R618-A2	2	—
R618-A2A	2	—
R618-A3	22	—
R620-A1	2	—
R621-A1	195	221W
R621-A1A	2	—
R621-A1B	2	—
R621-A2	22	—
R621-A3	59	221BN
R622-A1	7	—
R622-A2	35	—
R622-A4	29	—
R624-A1	35	—
*R628-A1	35	—
R628-A1A	35	—
R628-A2	29	—
R628-A3	7	—
R628-A5	5	222BR
R629-A1	89	—
R631-A1	7	—
R634-A4	79	—
R634-A5	16	—
R637-A1	35	—
R637-A1A	35	—
*R637-A1B	35	—
R637-A2	7	221LT

*See 2.07

TABLE B (Cont)

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.	AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.	AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R637-A3	39	—	R706-A3	74	—	R741-A1	173	221B
R637-A6	128	221KL	R706-A5	35	—	R741-A3	9	—
R639-A1	1	—	*R706-A5A	35	—	R741-A4	29	—
R641-A1	2	—	R706-A7	5	—	R741-A6	10	—
R641-A3	89	—	R706-A8	17	—	R741-A9	38	—
R645-A1	2	—	R707-A1	131	—	R741-B1	7	221CU
R646-A2	17	—	R708-A1	2	—	*R741-B2	35	221DA
R648-A1	2	—	R715-A1	1	—	R741-B5	174	221CD
R648-A4	131	—	R715-A2	7	—	*R741-B6	50	221DW
R650-A1	2	—	R715-A2A	7	221HJ	R742-A1	2	—
R650-A1A	2	—	R715-A4	29	—	R742-A1A	2	—
R650-A5	55	—	R715-A5	35	—	R745-A1	2	—
R651-A1	89	—	R715-A6	39	—	R746-A1	35	—
R653-A1	10	—	R715-A8	23	—	R750-A1	39	—
R654-A1	35	—	R715-B6	30	—	R751-A5	89	—
R656-A1	74	—	R716-A1	2	—	R751-A6	2	—
R658-A1	39	—	*R717-A1	35	221HC	R751-A8	22	—
R659-A1	2	—	R717-A1A	35	—	R751-A9	18	—
R660-A1	29	—	*R717-A1B	35	221FU	R751-B1	86	221LH
R662-A1	39	—	*R717-A1C	35	—	R752-A1	2	—
R664-A1	35	—	R717-A2	29	—	R752-A1A	2	—
R666-A1	35	—	R717-A4	7	221EA	R753-A1	1	—
R668-A2	2	—	*R717-A4A	7	—	R753-A2	35	—
R669-A3	2	—	R717-A5	1	—	R757-A1	89	—
R669-A6	9	—	R717-A6	74	—	R757-A2	131	—
R674-A1	2	—	R717-A9	8	—	R757-A9	10	—
R675-A1	10	—	R717-B7	145	—	R757-B1	15	—
R676-A1	2	—	*R717-B9	39	—	R757-B2	28	—
R677-A1	2	—	R717-B9A	39	—	R758-A1	10	—
R679-A1	2	—	R718-A1	39	—	R759-A2	2	—
R681-A1	89	—	R720-A5	2	—	R764-A1	39	—
R683-A1	2	—	*R721-A1	35	—	R765-A1	1	—
R684-A1	89	—	R722-A1	39	—	R766-A1	39	—
R684-A3	2	—	R722-A1A	39	—	R769-A1	28	—
R686-A1	35	—	R724-A1	2	—	R769-A2	89	—
R688-A1	2	—	R725-A1	1	—	R769-A3	10	—
*R690-A1	35	—	R725-A4	35	—	R769-A4	131	—
R696-A1	2	—	R725-B1	5	—	R770-A1	2	—
R697-A1	15	—	R725-B2	7	—	R772-A2	29	—
R698-A1	10	—	R728-A1	39	—	R773-A2	131	—
R698-A3	22	—	R733-A1	131	—	R773-A3	89	—
R698-A6	2	—	R734-A1	2	—	R774-A1	29	—
R698-A7	89	—	R736-A2	89	—	R778-A2	130	—
R701-A1	2	—	R737-A2	173	221L	R779-A1	131	—
R703-A1	2	—	R737-A3	174	221CE	R780-A1	35	—
R706-A1	29	—	R738-A1	2	—	R783-A1	131	—
R706-A1A	29	—	R740-A1	2	—	*R786-A1	35	222FS

*See 2.07

TABLE B (Cont)

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R786-A1A	35	—
R787-A1	2	—
R791-A1	2	—
R791-A4	2	—
R792-A1	39	—
R796-A1	2	—
R802-A1	39	—
R805-A1	10	—
R805-A2	131	—
R808-A1	89	—
R808-A2	2	—
R812-A1	39	—
R814-A1	2	—
R814-A1A	2	222HH
R814-A2	16	—
R815-A2	1	—
R815-A4	29	—
R815-A5	5	—
R816-A1	29	—
R816-A2	35	—
*R816-A3	108	222HA
R821-A1	2	—
R822-A1	89	—
R824-A2	2	—
R824-A3	22	—
R826-A1	2	—
R827-A1	7	—
R832-A1	2	—
R835-A1	2	—
R835-A1A	2	221GL
R835-A2	89	—
R835-A2A	89	—
R835-A3	22	—
R835-A8	131	—
R835-B9	16	—
R835-B9A	16	—
R835-C6	14	221HM
R835-C7	47	221JR
R835-C8	164	221KG
R835-C9	87	221GU
R836-A1	2	—
R837-A3	131	—
R837-A4	2	—
R837-A6	89	—
R845-A1	29	—
R845-A2	39	—
R848-A1	35	—

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R852-A2	15	222JK
R853-A1	2	—
R853-A1A	2	—
R857-A1	2	—
R859-A1	1	—
R859-A2	30	—
R860-A1	2	—
R861-A3	2	—
R861-A4	40	221GT
R861-A5	89	221GK
R864-A1	39	—
R864-A2	74	—
R865-A1	2	—
R871-A3	39	—
R874-A1	29	—
R878-A1	16	—
R879-A2	89	—
R880-A1	2	—
R882-A1	2	—
R884-A1	2	—
R894-A1	2	—
R894-A3	16	—
R894-A4	22	—
R894-A5	55	—
R894-A5A	55	222FA
R894-A7	145	—
R900-A1	29	—
R902-A1	39	—
R906-A1	39	222E
R906-A1A	39	—
R906-A1B	39	—
R906-A1C	39	—
R906-A1D	39	—
R906-A1E	39	—
R907-A1	35	—
R909-A1	2	—
R911-A1	2	—
R912-A1	2	—
R913-A1	2	—
R915-A1	2	—
R919-A1	7	—
R919-A2	29	—
R924-A2	101	222GJ
R925-A1	29	—
R925-A2	39	—
R925-A2A	39	—
R925-A3	21	—

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R925-A4	35	—
R925-A5	59	—
R927-A1	29	—
R929-A1	2	—
R932-A2	17	—
R934-A1	39	—
R935-A1	2	—
R936-A1	2	—
R937-A1	2	—
R938-A1	2	—
R940-A1	2	—
R940-A2	55	222JC
R943-A1	39	—
R945-A1	7	—
R945-A2	39	—
R945-A2A	39	—
R945-A3	31	—
R945-A4	166	221HR
R948-A1	39	—
R949-A1	55	—
R950-A1	39	—
R951-A1	131	—
R953-A2	1	—
R953-A3	7	—
R953-A5	30	—
R955-A1	131	—
R959-A1	1	—
R959-A2	22	—
R959-A3	30	—
R959-A4	2	—
R961-A1	1	—
*R963-A1	35	—
R963-A2	39	—
*R963-A7	49	221DK
R964-A1	2	—
R964-A5	50	—
R965-A1	2	—
R966-A2	2	—
R967-A1	2	—
R969-A1	7	221HE
R969-A2	29	—
*R969-A2A	29	—
R969-A3	5	221BJ
*R969-A4	35	221FD
R970-A4	23	—
R970-A6	79	—
R970-B2	50	—

*See 2.07

TABLE B (Cont)

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.	AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.	AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R974-A1	2	—	R1019-A4	9	—	R1033-B3	39	—
R975-A1	2	—	R1019-A5	2	—	R1033-B7	174	221CK
R976-A3	35	—	R1019-A6	131	—	*R1033-B8	50	221EK
R984-A2	22	—	R1019-B6	28	—	R1034-A1	2	222EN
R984-A3	2	—	R1019-B9	16	—	R1035-A1	2	—
R984-A3A	2	222FL	R1020-A1	89	—	R1036-A1	2	—
R984-A4	39	222DR	R1023-A1	1	—	R1037-A3	2	—
R985-A1	39	—	*R1023-A2	35	—	R1040-A1	2	—
R986-A1	2	—	*R1023-A2A	35	221GY	R1040-A1A	2	—
R988-A1	2	—	R1023-A3	7	—	R1041-A1	29	—
R989-A1	2	—	R1023-A4	29	—	*R1041-A1A	29	—
R990-A1	39	—	R1023-A9	26	221BT	R1042-A1	39	—
R991-A2	29	—	R1023-B1	11	221CT	R1043-A1	2	—
R992-A3	89	—	R1023-B3	30	—	R1044-A2	28	—
R992-A6	29	—	*R1023-B4	49	221DJ	R1045-A1	2	—
R992-A7	35	—	R1023-B5	25	221BR	R1046-A1	145	—
R994-A1	2	—	R1026-A1	89	—	R1046-A2	135	—
R994-A1A	2	—	R1027-A1	39	—	R1046-A2A	35	222FM
R996-A1	2	—	R1029-A3	131	—	R1047-A1	2	—
R1000-A1	2	—	R1031-A1	89	221P	R1048-A1	2	—
R1000-A3	50	—	R1031-A1A	89	221GE	R1048-A1A	2	—
R1001-A2	28	221AK	R1031-A2	10	—	R1048-A4	89	—
R1001-A3	9	221AM	R1031-A3	131	—	R1048-B2	23	—
R1001-A5	154	—	R1031-A3A	131	—	R1050-A1	2	—
R1001-B2	26	—	R1031-A8	28	—	R1051-A1	173	221K
R1001-B6	12	221BC	R1031-B5	90	—	R1051-A2	29	—
R1001-B6A	12	—	R1031-B8	15	—	R1051-A5	35	—
R1001-B7	14	221BH	R1032-A3	2	—	*R1051-A5A	35	—
R1002-A1	10	—	R1032-A4	131	—	R1051-A9	7	—
R1003-A3	154	—	R1032-A4A	131	—	R1051-B1	74	—
*R1004-A1	35	—	R1032-A9	23	—	R1051-B2	11	—
R1005-A3	15	—	R1032-B1	16	—	R1051-B4	174	221CF
R1005-A3A	15	221AW	R1032-B4	10	—	R1052-A1	2	—
R1007-A1	6	—	R1032-B7	89	—	R1053-A1	2	—
*R1008-A7	35	222A	R1032-B9	9	222BE	R1054-A2	2	—
R1013-A1	7	—	R1032-B9A	9	—	R1055-A1	2	221AB
R1013-A2	1	—	R1032-C3	8	—	R1055-A2	89	—
R1015-A1	1	—	R1032-C8	15	—	R1055-A2A	89	221FS
R1015-A2	7	—	R1032-D2	22	—	R1055-A4	131	—
*R1015-A2A	7	—	R1032-D4	55	—	R1055-A9	22	—
R1015-A4	35	—	R1032-D9	154	—	R1055-B4	61	221EW
*R1015-A6	50	—	R1033-A1	7	221AN	R1056-A1	23	—
R1016-A1	2	—	R1033-A3	1	—	R1056-A2	2	—
R1017-A1	2	—	R1033-A3A	173	221D	R1057-A1	2	—
R1019-A1	55	—	R1033-A5	29	—	R1057-A1A	2	221CB
R1019-A2	89	—	*R1033-A9	35	221CC	R1057-A3	28	—
R1019-A2A	89	—	R1033-A9A	35	—	R1057-A6	10	—

*See 2.07

TABLE B (Cont)

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R1057-B1	16	—
R1057-B4	39	—
R1058-A1	89	—
R1059-A1	131	221AG
R1059-A2	90	—
R1059-A2A	90	—
R1059-A2B	90	221BA
R1059-A2C	90	221BB
R1059-A3	89	—
R1059-A3A	89	—
R1059-A4	10	—
R1061-A4	2	—
R1061-A4A	2	221FG
R1061-A5	15	—
R1061-A7	55	—
R1061-A9	131	—
R1061-B3	39	—
R1061-B6	23	—
R1061-B7	9	—
R1061-B8	89	—
R1062-A1	39	—
R1063-A1	1	—
R1063-A2	30	—
R1067-A5	1	—
*R1067-A5A	1	—
R1067-A6	30	—
R1067-A6A	30	—
R1068-A1	2	—
R1068-A2	16	—
R1068-A3	13	—
R1068-A5	89	—
R1068-A7	131	—
R1068-B2	28	—
R1068-B4	31	—
R1068-B4A	31	—
R1069-A1	1	—
R1069-A1A	1	—
R1069-A2	35	—
*R1069-A3	7	—
*R1069-A3A	7	—
R1069-A5	30	—
R1070-A1	89	—
R1071-A1	2	—
R1071-A2	9	—
R1071-A2A	9	221DG
R1071-A6	89	—
R1071-A7	18	221JM

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R1073-A2	1	—
R1073-A3	35	—
R1073-A4	39	—
R1073-A6	29	—
R1074-A1	2	—
R1076-A1	7	—
R1077-A5	14	—
R1077-A5A	14	—
R1078-A1	2	—
R1079-A1	2	—
R1080-A1	89	—
R1080-A1A	89	—
R1080-A2	5	—
R1080-A2A	5	—
R1080-A3	2	—
R1080-A3A	2	—
R1080-A3B	2	222FD
R1083-A1	39	—
R1083-A1A	39	—
R1083-A2	5	—
R1083-A3	31	—
R1084-A1	39	—
R1084-A1A	39	—
R1085-A2	7	221AR
R1088-A1	39	—
R1089-A1	89	221R
R1089-A3	131	—
R1089-A7	10	—
R1089-A8	90	—
R1091-A1	19	221AY
R1091-A2	11	221BL
R1091-A2A	11	—
R1091-A3	154	—
R1091-A5	1	—
R1091-B6	147	221FAJ
R1092-A1	89	—
R1093-A1	89	—
R1093-A2	131	—
R1094-A2	2	—
R1095-A1	10	—
R1097-A1	39	—
R1099-A1	2	—
R1099-B1	9	—
R1099-B4	10	—
R1099-B9	89	—
R1099-C3	22	—
R1099-C4	23	—

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R1099-C5	16	—
R1101-A1	7	—
R1101-A2	35	—
R1101-A6	173	221H
R1101-A8	174	221CH
R1103-A1	38	—
R1103-A5	131	—
R1103-A6	89	—
R1108-A1	29	—
*R1108-A2	35	—
R1109-A2	55	—
*R1110-A1	35	—
R1111-A1	29	—
R1111-A2	7	—
R1111-A4	173	221G
R1111-A5	35	—
R1111-A8	174	221CJ
*R1111-B2	68	221FM
R1112-A1	5	—
R1115-A1	173	221J
R1115-A2	174	221CG
R1116-A1	7	—
R1117-A1	2	—
R1119-A1	89	—
R1119-A2	16	—
R1120-A1	39	—
R1120-A1A	39	—
R1121-A1	2	—
R1122-A1	15	—
R1123-A2	9	—
R1124-A3	78	222HF
R1126-A1	28	—
R1127-A1	2	—
R1127-A2	10	—
R1132-A1	2	—
R1134-A1	2	—
R1135-A1	7	221AT
*R1135-A1A	7	—
R1135-A2	1	—
*R1135-A6	35	—
R1135-A8	29	—
R1135-A9	11	—
R1135-B1	145	—
R1135-B2	39	—
*R1135-B3	50	221DR
R1136-A1	89	—
R1136-A4	2	—

*See 2.07

TABLE B (Cont)

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R1136-A5	39	—
R1137-A1	6	221BK
R1137-A2	2	—
R1137-A3	55	—
R1138-A1	2	222DA
R1138-A1A	2	—
R1138-A4	16	—
R1142-A1	16	—
R1142-A2	2	—
R1142-A3	22	—
R1143-A1	22	—
R1143-A4	13	—
R1143-A5	2	—
R1143-A9	23	221GJ
R1144-A1	2	—
R1145-A1	23	—
R1146-A3	56	—
R1151-A1	89	—
R1151-A3	35	—
*R1151-A3A	35	221CS
R1151-A5	7	—
R1151-A6	74	—
R1151-A7	126	—
R1151-B2	123	221KC
R1151-B3	128	221KB
R1151-B4	126	221LC
R1153-A2	29	—
R1157-A1	29	—
R1158-A1	2	—
R1158-A3	89	—
R1158-A6	8	—
R1158-A8	131	—
R1158-A9	22	—
R1158-B6	31	—
R1158-B9	13	—
R1158-C1	52	222GN
R1159-A1	89	—
R1160-A1	2	—
R1161-A2	131	—
R1163-A1	29	—
R1164-A1	10	—
R1165-A1	29	—
R1168-A1	2	—
R1169-A1	89	—
R1170-A1	7	—
R1170-A2	29	—
R1172-A1	2	—

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R1174-A2	2	222AH
R1174-A2A	2	—
R1174-A9	22	—
R1176-A1	2	—
R1178-A2	2	—
R1179-A1	2	—
R1179-A5	10	—
R1180-A1	2	—
R1181-A1	2	—
R1182-A1	2	—
R1183-A1	2	—
R1183-A1A	2	—
R1183-A4	110	221JC
R1183-A5	48	221JW
R1185-A1	35	—
R1188-A1	39	—
R1190-A1	2	—
R1191-A2	36	221CY
R1192-A1	2	—
R1192-A2	29	—
R1194-A2	29	—
*R1194-A3	35	222FP
R1196-A1	2	—
R1197-A1	29	—
R1197-A2	35	—
R1197-A2A	35	—
R1197-A3	1	—
R1197-A5	7	—
R1198-A1	2	—
R1203-A1	2	—
R1205-A1	89	—
R1205-A4	90	—
R1205-A6	157	221MA
R1205-A7	172	221MU
R1207-A1	7	—
R1208-A1	29	—
R1209-A1	2	—
R1209-A1A	2	—
*R1210-A1	35	—
R1211-A2	15	—
R1211-A3	2	—
R1213-A1	29	—
R1213-A2	39	—
R1214-A1	39	—
R1217-A1	18	—
R1221-A2	89	—
R1224-A1	1	—

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R1224-A2	7	—
R1226-A2	37	—
R1226-A3	39	—
R1227-A2	23	221GS
R1227-A3	2	—
R1227-A3A	2	221HK
R1228-A1	29	—
R1228-A2	5	—
R1228-A3	21	—
R1230-A1	2	—
R1231-A1	131	—
R1232-A1	2	—
R1233-A1	2	221AC
R1233-A2	39	—
R1233-A3	32	221CM
R1234-A1	2	—
R1235-A1	39	—
R1235-A2	7	—
*R1235-A4	35	—
*R1235-A4A	35	—
*R1235-A4B	35	221FN
R1235-A4C	35	221KM
R1236-A1	89	—
R1237-A1	7	—
R1239-A1	2	—
R1240-A2	2	—
R1240-A2A	2	222CU
R1240-A5	57	222ED
R1241-A1	131	—
R1243-A1	89	—
R1244-A1	89	—
R1246-A1	2	—
R1250-A1	2	—
R1250-A1A	2	222GF
R1255-A1	2	—
R1259-A1	2	—
R1259-A1A	2	221EM
R1260-A2	2	—
R1262-A1	39	—
R1263-A1	39	—
R1264-A1	22	—
R1267-A1	35	—
R1269-A1	35	—
R1271-A1	89	—
R1272-A3	154	—
R1272-A6	26	—
R1272-A7	12	222BM

*See 2.07

TABLE B (Cont)

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R1272-A8	27	222BW
*R1273-A1	10	221AL
R1275-A1	89	—
R1282-A2	35	—
R1282-A3	74	—
R1283-A1	1	—
R1285-A1	2	—
R1286-A1	55	—
R1286-A2	131	—
R1286-A3	89	—
R1287-A1	29	—
R1288-A1	2	—
R1289-A1	89	—
R1289-A1A	89	—
R1292-A2	39	—
R1292-A2A	39	—
R1292-A2B	39	—
R1292-A2C	39	—
R1292-A2D	39	—
R1293-A1	1	—
R1293-A2	174	221EF
R1294-A1	22	—
R1295-A1	89	—
R1297-A1	2	221AA
R1299-A1	2	—
R1302-A4	2	222GK
R1302-A7	89	—
R1302-A8	9	—
R1302-B1	10	—
R1302-B2	131	—
R1302-B2A	131	—
R1302-B6	16	—
R1302-B7	22	—
R1302-C1	23	—
R1304-A1	9	—
R1304-A2	10	—
R1304-A4	2	—
R1304-B4	89	—
R1306-A1	2	—
R1306-A3	22	—
R1307-A1	8	—
R1308-A1	35	—
R1310-A1	2	—
R1311-A1	16	—
R1313-A1	16	—
R1314-A1	2	—
R1314-A1A	2	222AL

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R1315-A1	35	—
R1315-A2	7	—
R1316-A1	9	—
R1316-A1A	9	—
R1316-A2	39	—
R1317-A1	89	—
R1317-A1A	89	221EB
R1317-A2	90	221JH
R1317-A3	154	221MB
R1317-A4	147	221FAD
R1317-A5	178	221FAK
R1318-A1	2	—
R1319-A1	131	—
R1321-A1	2	—
R1322-A1	2	—
R1323-A1	131	—
R1324-A2	2	—
R1325-A1	89	—
R1326-A1	16	—
R1327-A1	89	—
R1327-A2	15	—
R1330-A2	2	—
R1331-A1	9	221ET
R1333-A1	131	—
R1333-A2	52	221EC
*R1334-A1	35	222AT
R1336-A1	39	—
R1336-A1A	39	—
R1336-A1B	39	—
R1336-A1C	39	—
R1336-A1D	194	222J
R1336-A1E	39	—
R1336-A2	35	—
R1337-A1	2	—
R1337-A1A	2	221GF
R1338-A1	89	222Y
*R1339-A1	145	—
R1341-A1	2	—
R1342-A1	2	—
R1344-A1	29	—
R1345-A2	3	—
R1346-A1	2	—
R1348-A1	38	222BB
R1348-A1A	38	—
R1348-A1B	38	222BD
R1348-A1C	38	222BC
R1348-A1D	38	—

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
*R1348-A2	35	—
R1348-A2A	35	—
R1348-A2B	35	—
R1348-A4	29	—
R1348-A6	145	—
*R1348-A7	1	—
R1348-A9	7	—
R1348-B1	7	—
R1348-B7	5	—
R1348-B8	39	—
R1348-C7	115	222HE
R1349-A1	2	—
*R1350-A1	2	—
R1350-A5	131	—
R1350-A6	10	—
R1351-A1	131	—
R1352-A1	2	—
R1352-A1A	2	—
R1352-A5	16	—
R1353-A1	39	—
R1354-A1	173	222D
*R1354-A2	35	222CW
R1354-A2A	35	—
R1354-A3	7	—
R1354-A4	74	—
*R1354-A5	29	—
R1354-A5A	29	—
R1354-B3	5	—
R1354-B8	11	—
R1354-B9	174	222CK
R1356-A1	2	—
R1356-A2	22	—
R1356-A4	131	—
R1356-A5	89	—
*R1357-A1	7	—
R1358-A1	2	—
R1358-A6	10	—
R1358-B2	23	—
R1359-A1	35	—
R1360-A1	2	—
R1360-A3	39	—
R1360-A3A	39	—
R1360-A3B	39	—
R1360-A3C	39	—
R1360-A3D	39	—
R1362-A1	22	—
R1363-A1	16	—

*See 2.07

TABLE B (Cont)

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R1364-A1	22	—
R1364-A2	89	—
R1364-A2A	89	222W
R1364-A2B	89	—
R1364-A4	2	222AD
R1365-A1	29	—
R1366-A1	39	—
R1366-A1A	39	—
R1366-A1B	39	—
R1366-A1C	39	—
R1366-A1D	39	—
R1367-A1	2	—
R1367-A2	123	221KS
R1368-A1	29	—
R1368-A2	5	—
R1368-A2A	5	222BS
R1368-A3	35	—
R1368-A3A	35	—
R1368-A4	145	—
R1371-A1	89	—
R1372-A1	2	222DM
*R1373-A1	35	221AE
R1375-A1	35	—
R1376-A1	35	—
R1377-A1	2	—
R1378-A2	22	—
R1380-A1	39	222T
R1380-A1A	39	—
R1380-A1B	39	—
R1380-A1C	39	—
R1380-A1D	39	—
R1382-A1	29	—
R1382-A2	17	—
R1383-A2	39	—
R1388-A1	2	—
R1391-A1	3	221BF
R1394-A1	35	—
R1395-A1	39	—
R1396-A2	22	—
R1396-A4	131	—
R1396-A9	2	—
*R1398-A1	35	—
*R1398-A1A	35	—
*R1398-A1B	35	—
*R1398-A1C	35	—
R1398-A4	29	—
R1398-A6	8	—

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R1398-B3	38	—
R1398-B7	154	—
R1398-B9	7	—
R1399-A1	89	—
R1400-A1	2	—
*R1402-A1	35	—
R1402-A1A	35	—
R1402-A2	7	—
R1402-A4	39	—
R1402-A5	29	—
R1403-A1	90	—
R1403-A2	131	—
R1404-A1	2	—
R1405-A1	2	221BY
R1406-A1	35	—
R1406-A2	29	222C
R1406-A3	145	—
R1407-A1	2	—
R1409-A1	7	—
R1410-A1	89	—
R1410-A2	22	—
R1411-A2	35	—
R1412-A1	2	—
R1413-A1	35	—
R1414-A1	19	222BK
R1414-A2	11	222BU
R1414-A3	154	—
R1415-A2	42	221CR
R1416-A1	8	222AP
R1416-A5	2	—
R1416-A5A	2	222CH
R1416-A9	131	—
R1416-B1	55	—
R1416-B5	89	—
R1416-B9	9	222BF
R1416-B9A	9	—
R1416-D6	16	—
R1416-D9	18	—
R1416-E3	10	—
R1416-E6	22	—
R1416-F1	81	222FK
R1418-A1	2	—
*R1419-A1	35	—
*R1419-A1A	35	221FP
R1420-A1	2	—
R1421-A2	44	221DB
R1423-A2	99	221HU

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R1424-A1	39	—
R1425-A1	53	—
R1426-A1	29	—
R1426-A1A	29	—
R1426-A2	7	—
*R1426-A3	35	—
R1426-A3A	35	—
R1426-A3B	35	—
*R1427-A1	7	—
R1428-A1	2	—
R1428-A3	39	—
R1430-A1	2	—
R1431-A1	5	—
R1433-A2	42	221DN
R1434-A1	20	—
R1434-A2	16	—
*R1435-A1	35	—
R1438-A1	2	—
R1440-A1	29	—
*R1440-A2	35	—
R1441-A2	42	—
R1443-A1	29	—
R1444-A1	29	—
R1445-A1	53	221DP
R1445-A2	96	221HY
R1446-A1	29	—
R1447-A1	29	—
R1448-A1	39	222H
R1448-A1A	39	—
R1448-A1B	39	—
R1450-A2	2	—
R1452-A1	22	—
R1453-A1	2	—
R1453-A3	14	221KT
R1454-A1	2	—
R1454-A1A	2	—
R1456-A1	7	—
*R1457-A1	145	221BD
*R1459-A1	50	—
*R1463-A1	50	—
R1464-A1	39	—
R1465-A1	30	—
R1466-A1	7	—
R1468-A1	29	—
R1468-A3	35	—
R1473-A1	60	221ES
R1474-A1	39	—

*See 2.07

TABLE B (Cont)

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R1474-A1A	39	—
R1474-A1B	39	—
R1474-A1C	39	—
R1474-A1D	39	—
R1475-A1	145	—
*R1476-A1	145	—
R1477-A1	174	221FT
R1478-A1	23	—
R1478-A2	2	—
R1478-A6	28	222HY
R1479-A1	2	221FR
R1480-A1	2	—
R1481-A1	2	221EE
R1482-A1	2	—
R1482-A2	22	—
R1483-A1	174	221FL
R1483-A2	7	221MP
R1484-A1	2	—
R1484-A1A	2	222CB
R1484-A2	89	—
R1484-A3	28	—
R1484-A6	9	—
R1484-A7	35	—
R1484-A8	7	—
R1484-A9	131	—
R1484-B1	29	—
R1484-B2	20	222BL
R1484-B4	18	—
*R1485-A1	50	221EL
R1487-A1	2	221EJ
R1487-A2	135	221LA
R1487-A3	40	221LP
R1487-A4	14	221LR
R1488-A2	2	222GH
*R1489-A1	14	221GD
R1491-A1	39	—
R1492-A1	39	—
R1493-A1	22	221HH
R1494-A3	2	—
R1495-A1	5	221HF
R1496-A1	39	—
R1496-A2	194	222JL
*R1499-A1	49	—
R1500-A1	2	—
R1500-A6	89	—
R1501-A1	10	—
R1502-A1	2	222AM

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R1502-A3	89	—
R1502-A4	16	—
R1502-A6	55	222EE
R1504-A1	35	222BA
R1505-A1	2	221HB
R1507-A1	10	221HA
R1508-A1	29	—
R1510-A1	29	—
*R1511-A1	35	221ER
*R1511-A1A	35	221KN
R1512-A1	22	—
R1512-A3	2	—
R1513-A1	35	—
R1514-A1	22	—
R1514-A2	2	—
R1515-A1	10	221EN
R1516-A1	39	—
R1517-A1	35	—
R1520-A1	2	—
R1521-A1	7	221JS
R1523-A1	95	221JN
R1524-A1	29	—
R1525-A1	40	221JU
*R1526-A1	35	222AW
R1528-A1	2	—
R1530-A1	2	—
R1532-A1	28	—
*R1534-A1	29	—
R1534-A2	35	—
R1534-A3	7	—
*R1536-A1	35	—
R1538-A1	29	—
R1538-A3	35	—
*R1538-A3A	35	—
*R1538-A4	126	—
R1538-A5	145	—
R1538-A6	7	—
R1538-A7	74	—
R1540-A1	29	—
*R1542-A1	35	—
R1542-A1A	35	—
R1542-A1B	35	—
R1542-A2	29	—
R1542-A3	7	—
R1542-A3A	7	—
R1542-A6	74	—
R1542-B2	1	—

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R1544-A1	35	—
R1545-A3	88	—
R1546-A1	2	—
R1546-A2	16	—
R1546-A3	13	—
R1548-A1	16	—
R1550-A1A	23	222BH
R1552-A1	2	222AG
R1553-A1	23	—
R1554-A1	2	222AJ
R1556-A2	2	—
*R1558-A1	35	—
*R1562-A1	35	—
R1566-A3	2	—
R1566-A3A	2	222EF
R1568-A1	16	—
R1570-A1	2	—
R1572-A1	22	—
R1574-A1	2	—
R1578-A1	2	—
R1580-A1	35	—
R1585-A1	5	221KE
R1586-A1	2	—
R1587-A1	174	221KF
R1588-A1	89	—
R1590-A1	2	—
*R1594-A1	35	—
R1596-A1	35	—
R1596-A2	7	—
*R1598-A1	35	—
R1600-A1	15	—
R1600-A2	131	—
R1604-A1	2	—
R1605-A1	185	221KH
*R1606-A1	35	—
R1608-A1	2	—
R1609-A1	165	221FAB
R1609-A2	40	221GP
R1609-A3	2	221LK
R1610-A1	2	—
R1614-A1	29	—
R1614-A2	75	222GE
R1620-A1	2	—
R1622-A1	2	—
R1626-A1	89	—
R1628-A1	39	—
R1628-A1A	39	—

*See 2.07

TABLE B (Cont)

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.	AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.	AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R1632-A1	9	—	R1733-A1	35	221HN	R1838-A1	2	—
R1634-A1	29	—	R1734-A1	21	—	R1838-A2	89	—
R1636-A1	35	—	R1740-A1	37	—	R1838-A2A	89	222DW
*R1636-A2	39	222R	R1742-A2	39	—	R1838-A4	40	222BJ
*R1641-A1	50	221KR	R1744-A1	2	—	R1842-A1	29	—
R1642-A1	2	—	R1746-A1	2	—	R1846-A1	16	—
R1643-A1	109	221KU	R1748-A1	2	—	R1848-A1	89	—
R1646-A1	7	—	R1748-A2	40	222HS	R1852-A1	2	—
R1646-A2	29	—	R1750-A2	2	—	R1853-A1	—	D-96329
*R1651-A2	42	221FF	R1758-A1	39	—	R1854-A1	2	—
R1653-A1	63	221FC	R1760-A1	89	—	R1856-A1	2	—
R1655-A1	7	221KW	R1760-A1A	89	—	R1860-A1	10	—
R1655-A2	2	221LM	R1762-A1	2	—	R1864-A1	2	—
R1656-A1	29	—	R1764-A1	131	—	R1866-A1	2	—
R1658-A2	29	—	R1764-A3	10	223AS	R1868-A1	2	224B
R1660-A1	29	—	R1766-A1	39	—	R1872-A1	2	—
R1662-A1	2	—	R1768-A1	55	—	R1874-A2	2	—
R1664-A1	2	—	R1778-A1	29	—	R1876-A1	89	—
R1666-A1	1	—	R1780-A1	29	—	*R1877-A1	7	221JB
R1670-A1	2	—	R1782-A1	89	—	R1878-A1	35	—
R1672-A1	2	—	R1786-A1	2	—	R1879-A1	15	221LN
R1672-A3	22	—	R1788-A1	2	—	R1880-A1	2	—
R1674-A1	2	—	R1788-A4	79	—	R1884-A1	2	—
R1676-A1	35	—	R1788-A6	28	—	*R1887-A1	7	221LS
R1678-A2	4	224D	R1790-A1	22	—	R1888-A1	2	—
*R1683-A1	35	221LE	R1792-A1	2	—	*R1889-A1	35	221DL
R1685-A1	74	221KY	R1794-A1	2	—	R1890-A1	2	—
R1687-A1	125	221LB	R1798-A1	29	—	R1891-A1	60	221JG
R1688-A1	39	—	R1798-A1A	29	—	R1892-A1	89	222AA
R1692-A1	35	—	R1799-A1	7	221KA	R1894-A1	195	223A
R1694-A1	22	—	R1800-A1	35	—	R1895-A1	153	221LY
R1694-A2	2	—	*R1802-A2	55	—	R1896-A1	2	224C
R1694-A2A	2	—	*R1805-A1	35	221LJ	R1896-A2	88	224AM
R1696-A1	2	—	*R1806-A1	35	—	R1897-A1	139	247A
R1700-A1	29	—	R1808-A1	2	—	R1899-A1	10	221JF
R1702-A1	131	—	R1812-A1	29	—	R1900-A1	5	223C
R1708-A1	2	—	R1814-A1	2	—	R1902-A2	4	224F
R1709-A1	86	221GN	R1818-A1	2	—	R1906-A2	4	224E
R1709-A2	147	221FAF	R1820-A1	2	—	R1908-A1	22	223B
R1712-A1	2	—	R1821-A1	35	221JY	R1910-A1	2	224A
R1716-A1	16	—	R1821-A2	39	D-89593	R1911-A1	139	247B
R1720-A1	16	—	R1828-A1	22	—	R1914-A1	2	222AF
R1722-A1	7	—	R1828-A2	2	—	R1916-A1	29	—
R1722-A2	1	—	R1830-A1	2	—	R1918-A2	5	—
R1726-A1	29	—	R1832-A1	89	—	R1922-A1	2	—
R1726-A2	35	—	R1834-A1	39	—	R1924-A1	89	—
*R1730-A1	41	222BY	R1836-A1	2	—	R1926-A1	89	—

*See 2.07

TABLE B (Cont)

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R1930-A1	23	—
R1931-A1	145	221LU
R1934-A1	2	—
R1938-A1	21	—
R1940-A1	22	—
R1948-A1	89	—
R1950-A1	39	—
R1954-A1	2	—
R1955-A1	144	251B
R1956-A1	21	224J
R1957-A1	196	247C
R1958-A1	2	—
R1959-A1	147	221FAC
R1959-A2	151	221FAE
R1960-A2	94	222GB
R1960-A3	122	222PB
R1963-A1	40	221GR
R1964-A1	10	222EG
R1966-A1	35	—
R1966-A2	2	—
*R1968-A1	35	—
R1972-A1	35	—
R1976-A1	2	—
R1978-A1	29	—
R1979-A1	140	247E
R1984-A1	23	—
R1986-A1	10	222DK
R1987-A1	155	251C
R1988-A1	89	—
R1989-A1	174	221MD
R1990-A1	39	222F
R1990-A1A	39	222G
R1992-A1	39	—
R1992-A1A	39	—
R1993-A1	156	221FAG
R1994-A1	39	—
R1994-A1A	39	—
R1996-A1	39	222K
R1996-A1A	39	222L
R1998-A1	39	—
R1998-A1A	39	—
R2000-A1	2	—
R2003-A1	177	221ME
R2004-A1	2	—
R2006-A2	43	222CM
R2008-A1	37	—
R2014-A1	23	—

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R2017-A1	151	221FAH
R2018-A1	23	—
R2019-A1	179	221FAL
R2021-A1	140	247F
R2026-A1	89	—
R2026-A1A	89	—
R2029-A1	142	251D
R2032-A1	89	—
R2034-A1	2	—
R2035-A1	150	221MT
R2038-A1	2	—
R2039-A1	196	247H
R2040-A2	4	224H
R2041-A1	196	247J
R2042-A2	4	224G
R2044-A1	2	224K
R2048-A1	194	222CD
R2048-A2	2	—
R2050-A1	2	224L
R2052-A1	2	224M
R2056-A1	39	222CG
R2056-A1A	39	—
R2062-A1	37	222CN
R2066-A2	85	222EY
R2072-A1	2	—
R2072-A1A	21	223J
R2072-A2	116	223BA
R2074-A2	77	223K
R2078-A2	16	224AD
*R2080-A1	82	224AE
R2082-A1	2	—
R2088-A1	5	—
R2090-A1	3	—
R2092-A1	194	222DG
*R2092-A2	43	222CP
R2094-A1	39	222DJ
R2094-A1A	39	—
R2096-A1	39	—
R2096-A1A	39	—
R2098-A1	39	—
R2098-A1A	39	—
R2100-A1	39	—
R2100-A1A	39	—
R2100-A1B	39	—
R2100-A1C	39	—
R2100-A1D	39	—
R2100-A2	56	222GL

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R2100-A2D	56	—
R2102-A1	39	—
R2102-A1A	39	—
R2104-A1	39	222DP
R2104-A1A	39	—
R2108-A1	39	—
R2110-A1	39	—
R2110-A1A	39	—
R2112-A1	5	—
R2112-A1A	5	—
R2114-A1	2	—
R2116-A1	2	222CT
*R2120-A1	35	—
R2126-A2	35	222HC
R2128-A1	2	223H
*R2130-A1	2	—
R2130-A3	79	—
R2132-A1	29	—
R2134-A1	35	222FF
R2152-A1	2	—
R2154-A1	2	222DN
*R2156-A1	145	222BN
R2158-A1	39	—
R2162-A1	39	—
*R2164-A1	35	—
R2168-A1	2	—
R2168-A1A	2	—
R2170-A1	15	—
R2172-A1	2	—
R2174-A2	16	—
R2178-A1	2	224AK
R2180-A1	39	222ER
R2180-A1A	39	—
R2182-A1	4	224AA
R2184-A1	29	—
R2186-A1	2	—
R2192-A1	2	222FJ
R2194-A1	66	222FC
*R2196-A1	69	222FH
R2198-A1	78	223L
R2200-A1	71	222FB
R2202-A1	79	224AG
*R2204-A1	73	222FN
*R2206-A1	73	222FR
R2208-A1	2	223M
R2210-A1	79	224AL
R2212-A1	194	222FE

*See 2.07

TABLE B (Cont)

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R2214-A1	80	224AF
R2218-A1	39	222EP
R2218-A1A	39	—
R2220-A1	89	223S
R2222-A1	80	224AN
R2224-A1	89	223D
R2226-A1	56	224T
R2226-A2	55	—
R2228-A1	194	222DT
R2230-A1	66	223G
R2230-A1A	66	—
R2232-A1	89	223E
R2234-A1	2	—
R2236-A1	64	222EM
R2238-A1	66	222EW
R2238-A1A	66	—
R2240-A1	80	224AB
R2242-A1	80	224R
R2242-A2	2	223AM
*R2244-A1	69	224Y
*R2246-A1	73	222FW
R2248-A1	35	222GG
R2250-A1	35	223AA
R2252-A1	2	224AS
R2256-A1	56	224AR
R2258-A1	2	224AP
R2260-A1	91	224AY
R2262-A1	2	222ET
R2264-A1	89	222GM
R2266-A1	2	222GA
R2268-A1	88	223T
R2270-A1	91	224AU
R2272-A1	5	222FY
R2276-A1	122	222PA
R2276-A2	2	222DE
*R2278-A1	35	—
R2280-A1	102	223AD
R2282-A1	2	222EU
R2286-A1	91	224BA
R2288-A1	80	224BB
R2290-A1	2	223AE
R2292-A1	39	222GP
R2294-A1	78	223AC
R2296-A1	2	222GD
R2298-A1	111	222GT
R2300-A1	103	222GY

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R2302-A1	89	222GW
R2304-A1	22	223AF
R2306-A1	55	223AK
R2308-A1	109	223AJ
R2310-A1	29	—
R2312-A3	50	—
R2316-A1	55	223AG
R2318-A1	2	223AH
R2320-A1	88	—
R2322-A1	23	223AP
R2324-A1	2	—
R2326-A1	35	—
R2328-A1	113	222HB
R2330-A2	50	—
R2358-A1	55	—
R2366-A1	114	222HD
R2370-A2	88	—
R2410-A1	79	—
R2412-A1	79	—
R2418-A2	50	—
R2432-A1	79	—
R2462-A1	50	—
R2464-A1	50	—
R2466-A1	50	—
R2470-A2	131	—
R2478-A1	50	—
R2480-A1	95	—
R2488-A1	110	—
R2502-A1	2	222HL
R2504-A1	22	224BC
R2510-A1	30	—
R2556-A1	2	223AM
R2570-A1	130	223BL
R2574-A1	55	223BH
R2578-A1	22	223BJ
R2580-A1	7	222HP
R2590-A1	167	222HR
R2592-A1	132	222HT
R2624-A1	2	222JD
R2626-A1	44	222JB
R2638-A1	119	223BB
R2674-A1	134	222HW
R2676-A1	133	224BG
R2678-A1	109	222JE
R2718-A1	61	224BH
R2810-A1	136	222JF

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R2826-A1	7	223BM
R2838-A1	2	222HJ
R2842-A1	137	223BP
R2870-A1	2	223BN
R3116-A1	15	223Y
*R3228-A1	35	222GS
R3232-A1	22	224W
*R3278-A1	14	223F
R3372-A1	131	D-96328
R3382-A1	83	222FT
R3386-A1	100	223BE
R3388-A1	61	224AT
R3448-A1	23	223P
R3476-A1	100	223AB
R3486-A1	2	223AR
R3510-A1	139	248A
R3520-A1	1060	D-97463
R3522-A1	139	248B
R3524-A1	139	248C
R3526-A1	139	248D
R3566-A1	35	222JG
R3622-A1	146	223BS
R3634-A1	35	222JH
R3636-A1	142	252A
R3638-A1	2	223BT
R3640-A1	15	223BU
*R3646-A1	35	223R
*R3648-A1	72	222FU
R3650-A1	61	224AJ
R3678-A1	149	223CA
R3682-A1	88	224BJ
R3690-A1	149	223BW
R3692-A1	2	223BY
R3704-A1	14	223CB
R3706-A1	158	223CC
R3708-A1	73	223CD
R3710-A1	100	223CE
R3726-A1	7	223CF
*R3728-A1	14	223CG
R3730-A1	2	222JM
R3732-A1	171	223CN
R3738-A1	149	223CH
R3782-A1	2	222KB
R3784-A1	160	222KA
R3788-A1	48	222JU
R3790-A1	4	224BR

*See 2.07

TABLE B (Cont)

AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.	AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.	AEC _o RELAY CODE NO.	ITEM NO. TABLE C P 27-30	WEC _o RELAY CODE NO.
R3792-A1	170	223CR	D-811568	24	225H	INDUCTORS		
R3802-A1	139	248J	D-811569	24	225K			
D-811157	24	225B	D-811570	24	225L			
D-811321	24	225C	D-811571	93	225J			
D-811412	54	225E	D-811580	84	225G			
D-811421	24	225A	D-811603	24	225P	R673-B2	131	133B
D-811560	24	225D	D-811604	148	225R	R673-F4	46	133A
D-811566	24	225M	D-811610	106	225N	R673-G3	86	133C
D-811567	70	225F	D-811624	161	225S	R956-A1	89	132C
						R956-A2	131	132A
						R956-D4	58	132B
						R956-C7	13	132D

TABLE C — NUMERICAL LIST OF WEC_o AND AEC_o COILS BY ITEM NUMBERS [SEE 2.03 (c), 2.05, AND 2.06]WEC_o Coils Showing
Interchangeable AEC_o Coils

ITEM NO.	WEC _o COIL NO.	AEC _o COIL NO.	
		(WHITE COVERING)	(BLACK COVERING)
1	P-250225	D-285002	D-280001
2	P-250229	D-285005	D-280028
3	P-250242	D-285040	D-281462
4	P-250713	D-285046	D-281611
5	P-250720	D-285029	D-280820
6	P-250723	D-285031	D-280942
7	P-250737	D-285015	D-280200
8	P-250738	D-285006	D-280047
9	P-250746	D-285014	D-280199
10	P-250752	D-285013	D-280077
11	P-250778	D-285032	D-280958
12	P-250790	D-285048	D-281620
13	P-250792	D-285016	D-280201
14	P-250865	D-285026	D-280579
15	P-250866	D-285018	D-280247
16	P-250867	D-285025	D-280533
17	P-250868	D-285027	D-280717
18	P-250870	D-285030	D-280879
19	P-250873	D-285019	D-280320
20	P-250874	D-285020	D-280324
21	P-250880	D-285035	D-281254
22	P-250890	D-285022	D-280383
23	P-250892	D-285017	D-280219
24	P-250910	D-285000	D-28888
25	P-250940	D-285140	—
26	P-250941	D-285028	D-280788
27	P-250953	D-285052	D-281644
28	P-250954	D-285010	—
29	P-250955	D-285001	D-280000

ITEM NO.	WEC _o COIL NO.	AEC _o COIL NO.	
		(WHITE COVERING)	(BLACK COVERING)
30	P-250989	D-285036	D-281266
31	P-250996	D-285033	D-281098
32	P-250997	D-285099	D-282044
33	P-250998	D-285050	D-281630
34	P-251002	D-285045	D-281607
35	P-251053	D-285008	D-280054
36	P-251076	D-285339	—
37	P-251077	D-285038	D-281316
38	P-251078	D-285012	D-280074
39	P-251079	D-285003	D-280003
40	P-251080	D-285049	D-281621
41	P-251081	D-285037	D-281313
42	P-251083	D-285044	D-281606
43	P-251084	D-285043	D-281601
44	P-251108	D-285053	D-281645
45	P-251128	—	—
46	P-251152	D-285340	—
47	P-251163	D-285146	D-280341
48	P-251168	D-285090	D-281882
49	P-251218	D-285071	D-281778
50	P-251244	D-285047	D-281616
51	P-251245	—	—
52	P-251248	D-285051	D-281635
53	P-251252	D-285041	D-281564
54	P-251262	D-285054	D-281675
55	P-251263	D-285023	D-280400
56	P-251267	D-285042	D-281565
57	P-251280	D-285077	D-281801
58	P-251286	D-285057	D-281689
59	P-251287	D-285039	D-281415
60	P-251292	D-285055	D-281678
61	P-251295	D-285217	—

TABLE C (Cont)

ITEM NO.	WEC _o COIL NO.	AEC _o COIL NO.	
		(WHITE COVERING)	(BLACK COVERING)
62	P-251314	—	—
63	P-251315	D-285198	—
64	P-251318	D-285078	D-281814
65	P-251322	D-285066	D-281752
66	P-251340	D-285064	D-281744
67	P-251342	—	—
68	P-251350	D-285067	D-281756
69	P-251356	D-285065	D-281745
70	P-251358	D-285081	D-281838
71	P-251363	D-285073	D-281788
72	P-251369	D-285383	—
73	P-251374	D-285060	D-281739
74	P-251375	D-285161	D-280073
75	P-251376	D-285068	D-281757
76	P-251377	D-285059	D-281738
77	P-251379	D-285070	D-281759
78	P-251380	D-285063	D-281743
79	P-251381	D-285069	D-281758
80	P-251382	D-285062	D-281741
81	P-251383	D-285056	D-281688
82	P-251384	D-285074	D-281789
83	P-251385	D-285312	—
84	P-251386	D-285061	D-281740
85	P-251389	D-285076	D-281797
86	P-251426	D-285390	—
87	P-251431	D-285359	—
88	P-251447	D-285058	D-281705
89	P-251478	D-285004	—
90	P-251479	D-285021	—
91	P-251480	D-285087	D-281873
92	P-251481	D-285075	D-281795
93	P-251482	D-285092	D-281885
94	P-251493	D-285088	D-281877
95	P-251494	D-285089	D-281879
96	P-251504	D-285091	D-281883
97	P-251520	D-285082	D-281844
98	P-251521	D-285085	D-281848
99	P-251522	D-285084	D-281846
100	P-251526	D-285337	—
101	P-251527	D-285083	D-281845
102	P-251542	D-285094	D-281925
103	P-251547	D-285097	D-281970
104	P-251572	—	—
105	P-251573	—	—
106	P-251584	D-285336	—
107	P-251585	—	—
108	P-251586	D-285096	D-281969
109	P-251643	D-285098	D-281996

ITEM NO.	WEC _o COIL NO.	AEC _o COIL NO.	
		(WHITE COVERING)	(BLACK COVERING)
110	P-251666	D-285079	D-281819
111	P-251670	D-285095	D-281963
112	P-251703	D-285367	—
113	P-251771	D-285100	D-282051
114	P-251827	D-285101	D-282055
115	P-251830	D-285102	D-282085
116	P-251831	D-285331	—
117	P-251833	—	—
118	P-251834	—	—
119	P-251835	D-285183	—
120	P-251836	—	—
121	P-251859	—	—
122	P-251862	D-285086	—
123	P-251905	D-285139	D-280823
124	P-251906	D-285177	—
125	P-251907	D-285220	—
126	P-251908	D-285219	D-280336
127	P-251909	D-285218	D-280791
128	P-251942	D-285141	D-280568
129	P-251943	—	—
130	P-251944	D-285093	D-281919
131	P-251951	—	—
132	P-252023	—	—
133	P-252024	D-285200	—
134	P-252025	D-285199	—
135	P-252062	D-285221	—
136	P-252063	D-285222	—
137	P-252071	D-285228	—
138	P-252072	D-285223	—
139	P-252099	D-285351	—
140	P-252100	D-285380	—
141	P-252121	D-285387	—
142	P-252130	D-285378	—
143	P-252131	D-285364	—
144	P-252132	—	—
145	P-252142	D-285024	D-282384
146	P-252146	D-285237	—
147	P-252151	D-285379	—
148	P-252174	—	—
149	P-252176	D-285391	—
150	P-252177	D-285395	—
151	P-252186	D-285393	—
152	P-252187	D-285202	D-281520
153	P-252188	D-285341	—
154	P-252189	D-285277	D-281234
155	P-252198	D-285396	—
156	P-252202	D-285401	—
157	P-252203	D-285278	—

TABLE C (Cont)

ITEM NO.	WEC _o COIL NO.	AEC _o COIL NO.	
		(WHITE COVERING)	(BLACK COVERING)
158	P-255205	D-285397	—
159	P-252238	D-285430	—
160	P-252239	—	—
161	P-252241	D-285442	—
162	P-252242	—	—
163	P-252245	—	—
164	P-252246	—	—
165	P-252248	—	—
166	P-252249	—	—
167	P-252250	—	—
168	P-252251	D-285386	D-281286
169	P-252252	—	—
170	P-252259	D-285441	—
171	P-252260	D-285429	—
172	P-252261	D-285440	—
173	P-252262	—	—
174	P-252263	—	—
175	P-252419	—	—
176	P-252420	—	—
177	P-252487	D-285411	—
178	P-252488	D-285412	—
179	P-252518	D-285427	—
180	P-252565	—	—
181	P-252566	—	—
182	P-252569	—	—
183	P-252570	—	—
184	P-252571	—	—
185	P-252614	—	—
186	P-252651	—	—
187	P-252652	—	—
188	P-252653	—	—
189	P-252654	—	—
190	P-252655	—	—
191	P-252656	—	—
192	P-252657	—	—
193	P-252659	—	—
194	P-252868	D-285003	D-280003
195	P-252874	D-285005	D-280028
196	P-252928	—	—
197	P-252421	—	—
198	P-252422	—	—
199	P-252423	—	—
200	P-252424	—	—
201	P-252427	—	—
202	P-484710	—	—
203	P-485096	—	—
204	P-252428	—	—
205	P-252429	—	—
206	P-252430	—	—

ITEM NO.	WEC _o COIL NO.	AEC _o COIL NO.	
		(WHITE COVERING)	(BLACK COVERING)
207	P-252431	—	—
208	P-252432	—	—
209	P-252433	—	—
210	P-252434	—	—
211	P-252658	—	—
212	P-252661	—	—
213	P-252663	—	—
214	P-252664	—	—
215	P-252665	—	—
216	P-252666	—	—
217	P-252667	—	—
218	P-252668	—	—
219	P-253215	—	—
220	P-11A087	—	—
221	P-11A088	—	—
222	P-11A470	—	—

**Numerical List of AEC_o Coils
Having No Corresponding
WEC_o Coils**

ITEM NO.	WEC _o COIL NO.	AEC _o COIL NO.	
		(WHITE COVERING)	(BLACK COVERING)
1001	—	D-285007	D-280050
1002	—	D-285072	D-281783
1003	—	D-285080	D-281836
1004	—	D-285114	D-281125
1005	—	D-285137	D-281455
1006	—	D-285138	D-281530
1007	—	D-285145	D-282036
1008	—	D-285147	D-280208
1009	—	D-285148	D-280401
1010	—	D-285149	D-280434
1011	—	D-285150	D-281108
1012	—	D-285151	D-281223
1013	—	D-285152	D-281499
1014	—	D-285153	D-281503
1015	—	D-285154	D-280228
1016	—	D-285163	D-280018
1017	—	D-285164	D-280217
1018	—	D-285165	D-280251
1019	—	D-285166	D-280266
1020	—	D-285167	D-280296
1021	—	D-285168	D-280355
1022	—	D-285169	D-280399
1023	—	D-285170	D-280707
1024	—	D-285171	D-280771

TABLE C (Cont)

ITEM NO.	WEC _o COIL NO.	AEC _o COIL NO.	
		(WHITE COVERING)	(BLACK COVERING)
1025	—	D-285172	D-280848
1026	—	D-285173	D-280856
1027	—	D-285174	D-280967
1028	—	D-285176	D-281497
1029	—	D-285178	D-281318
1030	—	D-285181	D-281138
1031	—	D-285184	D-280071
1032	—	D-285185	D-280072
1033	—	D-285186	D-280209
1034	—	D-285187	D-280833
1035	—	D-285188	D-281062
1036	—	D-285189	D-281512
1037	—	D-285190	D-280710
1038	—	D-285191	D-280547
1039	—	D-285194	D-280292
1040	—	D-285195	D-280289
1041	—	D-285196	D-280262
1042	—	D-285197	D-280442
1043	—	D-285203	D-281033

ITEM NO.	WEC _o COIL NO.	AEC _o COIL NO.	
		(WHITE COVERING)	(BLACK COVERING)
1044	—	D-285204	D-280197
1045	—	D-285205	D-280834
1046	—	D-285206	D-282118
1047	—	D-285207	D-280248
1048	—	D-285209	D-280196
1049	—	D-285210	D-280303
1050	—	D-285211	D-281194
1051	—	D-285212	D-281532
1052	—	D-285213	D-280302
1053	—	D-285214	D-280474
1054	—	D-285215	D-281089
1055	—	D-285226	D-281548
1056	—	D-285233	D-28878
1057	—	D-285234	D-280068
1058	—	D-285235	D-281869
1059	—	D-295239	D-280471
1060	—	D-285344	—
1061	—	D-285347	D-282170
1062	—	D-285362	D-282169

TABLE D — NUMERICAL LIST OF AEC_o COIL NUMBERS WITH CROSS REFERENCES TO ITEM NUMBERS IN TABLE C FOR INTERCHANGEABLE COILS [SEE 2.03 (d) AND 2.06]

COIL NO.	ITEM NO. TABLE C P 27-30	COIL NO.	ITEM NO. TABLE C P 27-30	COIL NO.	ITEM NO. TABLE C P 27-30	COIL NO.	ITEM NO. TABLE C P 27-30
D-28878	1056	D-280209	1033	D-280401	1009	D-280942	6
D-28888	24	D-280217	1017	D-280434	1010	D-280957	1027
D-280000	29	D-280219	23	D-280442	1042	D-280958	11
D-280001	1	D-280228	1015	D-280471	1059	D-281033	1043
D-280003	39	D-280247	15	D-280474	1053	D-281062	1035
D-280018	1016	D-280248	1047	D-280533	16	D-281089	1054
D-280028	2	D-280251	1018	D-280547	1038	D-281098	31
D-280047	8	D-280262	1041	D-280568	128	D-281108	1011
D-280050	1001	D-280266	1019	D-280579	14	D-281125	1004
D-280054	35	D-280289	1040	D-280707	1023	D-281138	1030
D-280068	1057	D-280292	1039	D-280710	1037	D-281194	1050
D-280071	1031	D-280296	1020	D-280717	17	D-281223	1012
D-280072	1032	D-280302	1052	D-280771	1024	D-281234	154
D-280073	74	D-280303	1049	D-280788	26	D-281254	21
D-280074	38	D-280320	19	D-280791	127	D-281266	30
D-280077	10	D-280324	20	D-280820	5	D-281286	168
D-280196	1048	D-280336	126	D-280823	123	D-281313	41
D-280197	1044	D-280341	47	D-280833	1034	D-281316	37
D-280199	9	D-280355	1021	D-280834	1045	D-281318	1029
D-280200	7	D-280383	22	D-280848	1025	D-281415	59
D-280201	13	D-280399	1022	D-280856	1026	D-281455	1005
D-280208	1008	D-280400	55	D-280879	18	D-281462	3

TABLE D (Cont)

COIL NO.	ITEM NO. TABLE C P 27-30	COIL NO.	ITEM NO. TABLE C P 27-30	COIL NO.	ITEM NO. TABLE C P 27-30	COIL NO.	ITEM NO. TABLE C P 27-30
D-281497	1028	D-281844	97	D-285025	16	D-285075	92
D-281499	1013	D-281845	101	D-285026	14	D-285076	85
D-281503	1014	D-281846	99	D-285027	17	D-285077	57
D-281512	1036	D-281848	98	D-285028	26	D-285078	64
D-281520	152	D-281869	1058	D-285029	5	D-285079	110
D-281530	1006	D-281873	91	D-285030	18	D-285080	1003
D-281532	1051	D-281877	94	D-285031	6	D-285081	70
D-281548	1055	D-281879	95	D-285032	11	D-285082	97
D-281564	53	D-281882	48	D-285033	31	D-285083	101
D-281565	56	D-281883	96	D-285035	21	D-285084	99
D-281601	43	D-281885	93	D-285036	30	D-285085	98
D-281606	42	D-281919	130	D-285037	41	D-285086	122
D-281607	34	D-281925	102	D-285038	37	D-285087	91
D-281611	4	D-281963	111	D-285039	59	D-285088	94
D-281616	50	D-281969	108	D-285040	3	D-285089	95
D-281620	12	D-281970	103	D-285041	53	D-285090	48
D-281621	40	D-281996	109	D-285042	56	D-285091	96
D-281630	33	D-282036	1007	D-285043	43	D-285092	93
D-281635	52	D-282044	32	D-285044	42	D-285093	130
D-281644	27	D-282051	113	D-285045	34	D-285094	102
D-281645	44	D-282055	114	D-285046	4	D-285095	111
D-281675	54	D-282085	115	D-285047	50	D-285096	108
D-281678	60	D-282118	1046	D-285048	12	D-285097	103
D-281688	81	D-282169	1062	D-285049	40	D-285098	109
D-281689	58	D-282170	1061	D-285050	33	D-285099	32
D-281705	88	D-282384	145	D-285051	52	D-285100	113
D-281738	76	D-285000	24	D-285052	27	D-285101	114
D-281739	73	D-285001	29	D-285053	44	D-285102	115
D-281740	84	D-285002	1	D-285054	54	D-285114	1004
D-281741	80	D-285003	39	D-285055	60	D-285137	1005
D-281743	78	D-285004	89	D-285056	81	D-285138	1006
D-281744	66	D-285005	2	D-285057	58	D-285139	123
D-281745	69	D-285006	8	D-285058	88	D-285140	25
D-281752	65	D-285007	1001	D-285059	76	D-285141	128
D-281756	68	D-285008	35	D-285060	73	D-285145	1007
D-281757	75	D-285010	28	D-285061	84	D-285146	47
D-281758	79	D-285012	38	D-285062	80	D-285147	1008
D-281759	77	D-285013	10	D-285063	78	D-285148	1009
D-281778	49	D-285014	9	D-285064	66	D-285149	1010
D-281783	1002	D-285015	7	D-285065	69	D-285150	1011
D-281788	71	D-285016	13	D-285066	65	D-285151	1012
D-281789	82	D-285017	23	D-285067	68	D-285152	1013
D-281795	92	D-285018	15	D-285068	75	D-285153	1014
D-281797	85	D-285019	19	D-285069	79	D-285154	1015
D-281801	57	D-285020	20	D-285070	77	D-285161	74
D-281814	64	D-285021	90	D-285071	49	D-285163	1016
D-281819	110	D-285022	22	D-285072	1002	D-285164	1017
D-281836	1003	D-285023	55	D-285073	71	D-285165	1018
D-281838	70	D-285024	145	D-285074	82	D-285166	1019

TABLE D (Cont)

COIL NO.	ITEM NO. TABLE C P 27-30	COIL NO.	ITEM NO. TABLE C P 27-30	COIL NO.	ITEM NO. TABLE C P 27-30	COIL NO.	ITEM NO. TABLE C P 27-30
D-285167	1020	D-285196	1041	D-285222	136	D-285367	112
D-285168	1021	D-285197	1042	D-285223	138	D-285378	142
D-285169	1022	D-285198	63	D-285226	1055	D-285379	147
D-285170	1023	D-285199	134	D-285228	137	D-285380	140
D-285171	1024	D-285200	133	D-285233	1056	D-285383	72
D-285172	1025	D-285202	152	D-285234	1057	D-285386	168
D-285173	1026	D-285203	1043	D-285235	1058	D-285387	141
D-285174	1027	D-285204	1044	D-285237	146	D-285390	86
D-285176	1028	D-285205	1045	D-285239	1059	D-285391	149
D-285177	124	D-285206	1046	D-285277	154	D-285393	151
D-285178	1029	D-285207	1047	D-285278	157	D-285395	150
D-285181	1030	D-285209	1048	D-285312	83	D-285396	155
D-285183	119	D-285210	1049	D-285331	116	D-285397	158
D-285184	1031	D-285211	1050	D-285336	106	D-285401	156
D-285185	1032	D-285212	1051	D-285337	100	D-285411	177
D-285186	1033	D-285213	1052	D-285340	46	D-285412	178
D-285187	1034	D-285214	1053	D-285341	153	D-285427	179
D-285188	1035	D-285215	1054	D-285344	1060	D-285429	171
D-285189	1036	D-285217	61	D-285347	1061	D-285430	159
D-285190	1037	D-285218	127	D-285351	139	D-285440	172
D-285191	1038	D-285219	126	D-285359	87	D-285441	170
D-285194	1039	D-285220	125	D-285362	1062	D-285442	161
D-285195	1040	D-285221	135	D-285364	143		

3. REPLACEMENT PROCEDURES

3.01 List of Tools

CODE OR
SPEC NO.

DESCRIPTION

TOOLS

43	3/16- and 1/4-inch Hex. Open Double-end Flat Wrench
48	Combination 7/32-inch and 1/4-inch Hex. Double-end Socket Wrench and Screwdriver
206	30° Offset Screwdriver
207	90° Offset Screwdriver
207	90° Offset Screwdriver, Modified (See 3.02)
209	5/16-inch Hex. Open Single-end Offset Wrench
417A	1/4- and 3/8-inch Hex. Open Double-end Flat Wrench
418A	5/16- and 7/32-inch Hex. Open Double-end Flat Wrench

CODE OR
SPEC NO.

DESCRIPTION

TOOLS

474A	3/16- and 1/4-inch Hex. Closed Double-end Offset Wrench
476A	3/16-inch Hex. Offset Socket Wrench
563A	90° Offset Screwdriver
564A	45° Offset Screwdriver
565A	90° Offset Screwdriver
566A	45° Offset Screwdriver
R-1482	File
—	5-inch Diagonal Pliers
—	P-Long-nose Pliers
—	3-inch Cabinet Screwdriver
—	4-inch Regular Screwdriver
—	6-inch Straight Tweezers, American Piano Supply Co., No. 56 (or equivalent)

3.02 Modify a No. 207 offset screwdriver by cutting it in two parts with a hacksaw at a line midway between the two ends and remove burrs from the cut edges with the R-1482 file.

3.03 After making any replacements of parts of a relay, the part or parts replaced shall meet the readjust requirements involved as specified in Section 040-236-701. Other parts whose adjustments may have been directly disturbed by the replacing operations shall be checked to the readjust requirements, and an over-all operation check shall be made of the relay before restoring the circuit to service.

3.04 No replacement procedures are specified for screws or other parts where the replacement consists of a simple operation.

221-, 222-, 223-, 224-, 247-, 248-, 251- AND 252-TYPE RELAYS AND 132- AND 133-TYPE INDUCTORS

3.05 *Residual Screw and Residual Screw Locknut:* (Fig. 8)

(1) If the residual screw is readily accessible, loosen the residual screw locknut with the wrench portion of the No. 48 combination wrench and screwdriver and remove the residual screw with the screwdriver portion of the tool. Substitute the new parts. Adjust the screw to meet the residual airgap requirement covered in Section 040-236-701 and securely tighten the residual screw locknut.

(2) If the residual screw is behind a normal post spring assembly but is accessible for removal by the fingers, replace the screw as follows. First, remove the cover from the switch adjacent to the relay being worked on. Then, loosen the residual screw locknut with the No. 474A wrench, taking care to avoid grounding the adjacent springs. Turn the screw with the modified No. 207 screwdriver or with the fingers, and remove the screw and locknut. Substitute the new parts. Adjust the screw to meet the residual airgap requirement covered in Section 040-236-701 and securely tighten the residual screw locknut.

(3) If the residual screw is not accessible to the fingers, loosen the setscrew of the normal post spring assembly using the 3-inch cabinet screwdriver or the No. 476A wrench and shift or remove the spring assembly to

gain access to the screw, taking care not to damage the leads. Replace the residual screw as covered in (1) if the spring assembly has been removed, or as covered in (2) if the assembly has been shifted. Adjust the screw to meet the residual airgap requirement covered in Section 040-236-701. Reposition and adjust the normal post spring assembly.

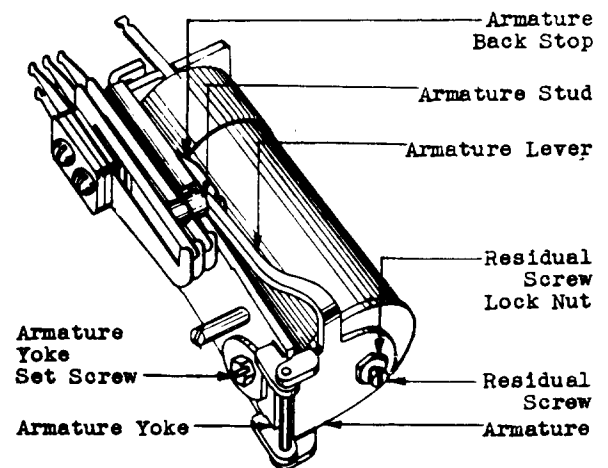


Fig. 8 – Parts of 221-, 222-, 223-, and 224-type Relays

3.06 *Armature Backstop Screw* (251- and 252-type Relays):

(1) Replace the armature backstop screw and locknut following procedures similar to those for the residual screw and locknut covered in 3.05 (1), (2), or (3) except use the No. 209 wrench to loosen the locknut.

3.07 *Armature and Yoke, Armature Yoke Set-screw, and Armature Yoke Clamping Washer:*

To replace the armature and yoke, loosen the yoke setscrew with the No. 476A offset socket wrench for 247-, 248-, and modified 221- and 222-type relays or with the No. 563A and No. 564A offset screwdrivers for all other types. Remove the armature and yoke by drawing it forward. If the setscrew or clamping washer is to be removed, do it at this time. To remove the armature and yoke on 251- and 252-type relays, remove the armature yoke setscrew and armature yoke clamping washer. Then swing

the yoke forward and remove the armature from the side of the relay. Place the new armature yoke clamping washer in position on the heelpiece so that the lug on the washer engages the hole in the heelpiece. Place the yoke setscrew in position and give it a few turns to hold the clamping washer loosely. Guide the armature into position so that the armature yoke is between the armature yoke clamping washer and the heelpiece and the armature stud is between the armature backstop and the first lever spring. Then secure the armature and yoke in position by tightening the armature yoke setscrew with the No. 563A and 564A offset screwdrivers or the No. 476A wrench as required.

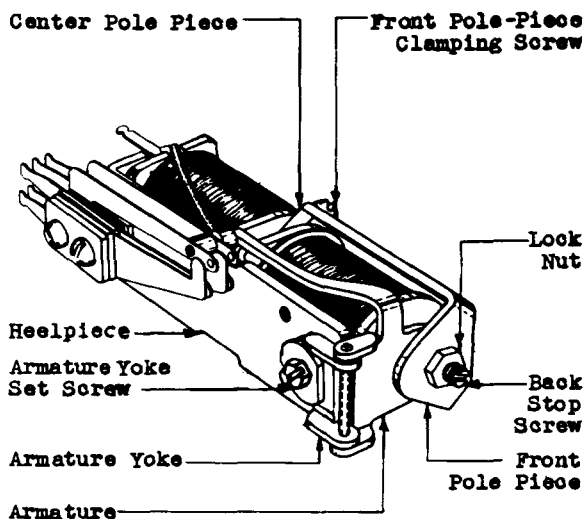


Fig. 9 – Parts of 251- and 252-type Relays

3.08 Front Pole Piece (251- and 252-type Relays): Loosen the front pole-piece clamping screws with the No. 206 and 207 offset screwdrivers and remove the front pole piece. Remove the backstop screw and locknut from the pole piece as covered in 3.06 and mount these parts on the new front pole piece. If the front pole-piece clamping screws are to be replaced, replace them at this time. Mount the new front pole piece in position with the armature between the front pole piece and the core and tighten the pole-piece clamping screw securely.

3.09 Armature Stud: Remove the armature and yoke as described in 3.07 and then remove the old stud from the armature arm by cutting it with the diagonal pliers. Place the new armature stud on the armature arm pressing it onto the arm with the long-nose pliers far enough to hold it in position. Then heat the armature arm slightly with a soldering iron and press the stud into place with the long-nose pliers as shown in Fig. 10.

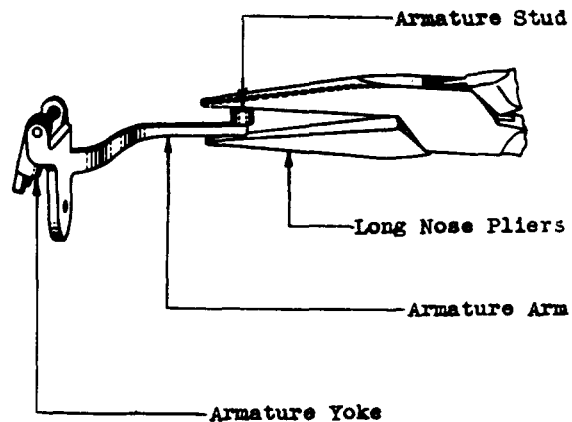


Fig. 10 – Method of Pressing the Armature Stud onto the Armature Arm

3.10 Coil

(1) Replace the coil as covered in (2) if the coil is readily accessible or as covered in (3) if the coil is behind a normal post spring assembly on a switch.

(2) If the coil is readily accessible, unsolder the leads from the winding terminals and remove the armature and yoke as described in 3.07. On 251- and 252-type relays, remove the front pole piece as covered in 3.08 and swing the armature outward. Remove the coil mounting screw with the 4-inch regular screwdriver and then remove the coil by drawing it forward until the winding terminals are free of the mounting plate. If the coil has four winding terminals and semicircular rear spoolhead, place a terminal bushing (see Fig. 4) over the winding terminal nearest the flat side of the spoolhead of the new coil so that

the collar on the bushing is adjacent to the spoolhead. If there is occasion to replace a coil having a square rear spoolhead and four winding terminals with one having a semi-circular rear spoolhead, use a terminal bushing per Fig. 4. On 251- and 252-type relays, mount the front pole piece and clamping screws in the new center pole piece. If the coil has a semicircular rear spoolhead, mount it so that the flat side of the spoolhead is adjacent to the heelpiece. If the coil has a square rear spoolhead, mount it so that the two rectangular holes in the front spoolhead are on the side away from the heelpiece. If the coil has a copper slug at the front end, mount it with the embossed side of the slug toward the heelpiece. Fasten the coil in place by tightening the coil mounting screws securely and assemble the armature and yoke in its correct position as covered in procedure 3.07. On 251- and 252-type relays, mount the front pole piece as covered in 3.08. When the relays are mounted on a mounting plate similar to the 930 type, it will be necessary to remove the mounting plate from the shelf as described for a 197- or 198-type switch in Section 030-705-801, in order to reach the wiring and the coil mounting screw.

(3) If the coil is behind a normal post spring assembly on a switch, make the coil accessible for removal by shifting or removing the spring assembly as covered in 3.05 (3). Replace the coil as covered in (2) above and remount the spring assembly as covered in 3.05 (3).

3.11 Terminal Bushing (Fig. 4): Remove the armature, yoke, and the coil as described in 3.10. Then remove the bushing from the winding terminal with the long-nose pliers or by cutting it with the diagonal pliers. Place the new bushing in place on the winding terminal nearest the flat side of the spoolhead so that the collar on the bushing is adjacent to the spoolhead. Then reassemble the coil and the armature and yoke as described in 3.10.

225-Type Relays and AEC0 Pivot-type Relays

3.12 Residual Screw and Residual Screw Locknut

(1) Replace the residual screw and locknut as covered in 3.05 (1) if the screw is readily accessible or as covered in (2) below if the

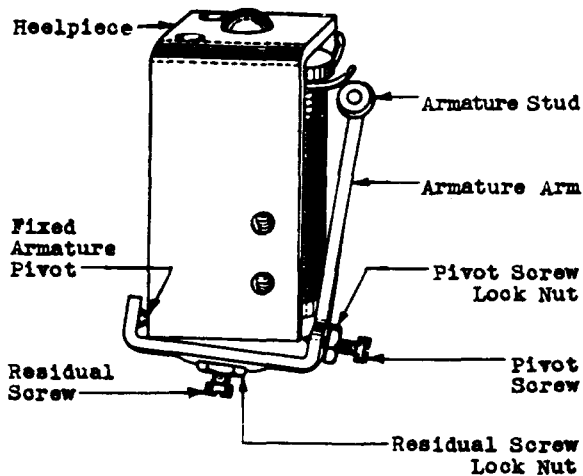
screw is behind a rotary off-normal spring assembly on a switch.

(2) If the residual screw is behind a rotary off-normal spring assembly, first remove the cover from the switch adjacent to the relay being worked on. Loosen the residual screw locknut with the No. 474A wrench, taking care to avoid grounding the adjacent springs. Turn the screw with the modified No. 207 screwdriver or with the fingers and remove the screw and locknut. Substitute the new parts. Adjust the screw to meet the residual airgap requirement covered in Section 040-236-701 and securely tighten the residual screw locknut.

3.13 Pivot Screw and Locknut: Loosen the pivot screw locknut with the No. 417A wrench if the nut is 1/4 inch across flats, with the No. 418A wrench if the nut is 7/32 inch across flats, or with the No. 43 wrench if the nut is 3/16 inch across flats. Remove the pivot screw with the modified No. 207 offset screwdriver. Substitute the new screw and locknut and tighten the locknut securely.

3.14 Armature (Pivot-type Armature Bearing): Remove the pivot screw and locknut as described in 3.13 after which the armature may be removed by swinging the armature arm away from the coil to disengage the fixed pivot from the heelpiece. If the armature assembly is not provided with an armature stud, assemble the stud on the new armature arm as described in 3.09. Substitute the new armature by engaging the fixed armature pivot in the bearing hole in the heelpiece as shown in Fig. 11 and guide the armature arm so that the armature stud is between the backstop and the first lever spring. Hold the armature in this position, turn the pivot screw into position, and tighten the pivot screw locknut securely.

3.15 Armature and Yoke and Armature and Yoke Mounting Screws (Pin-type Armature Bearing): To replace the armature and yoke of a relay used as the "Z" relay of a 197-type switch, remove the switch from the shelf as described in Section 030-705-801 covering Piece-Part Data and Replacement Procedures for 197- and 198-type Switches. Then unsolder the leads from the contact springs and remove the relay mounting screws on the rear



**Fig. 11 – Method of Replacing the Armature
(Pivot-type Armature Bearing)**

of the mounting plate with the 4-inch regular screwdriver. Support the relay in the hand and remove the armature and yoke mounting screws with the 4-inch regular screwdriver. Substitute the new armature and yoke and spring assembly, resolder the leads to the contact springs, fasten the relay to the mounting plate with the mounting screws, and replace the switch on the shelf as covered in Section 030-705-801.

3.16 Armature Stud: To replace the armature stud, remove the armature and yoke as described in 3.14 or 3.15 and then substitute the new armature stud as described in procedure 3.09.

Coil

3.17 225-type Relay with Pin-type or Pivot-type Armature Bearing: To replace the coil of a relay used as the "Z" relay of a 197-type switch, remove the switch from the shelf as covered in Section 030-705-801. Then unsolder the leads from the winding terminals, and remove the coil by removing the coil mounting screw from the rear of the switch mounting plate with the 4-inch regular screwdriver. Substitute the new coil and fasten it in position with the coil mounting screw so that the winding terminals extend toward the right-hand side of the switch as viewed from the front. Solder the winding leads in place and replace the switch on the shelf as covered in Section 030-705-801.

3.18 AEC Co Pivot-type Relay, Line Switch

Mounting: To replace the coil of a pivot-type relay mounted on a plunger-type switch frame, remove the line switch from the shelf as described in Section 030-705-801 covering the requirements and adjusting procedures for Plunger-type Primary and Secondary Line Switches and Out-Trunk Switches. Then remove the switch jack mounting screw with the 3-inch cabinet screwdriver and move the jack out of the way so as to give access to the coil mounting screw. Unsolder the leads from the coil winding terminals and remove the coil by removing the coil mounting screw with the 4-inch regular screwdriver. Substitute the new coil and tighten it in position with the coil mounting screw so that the winding terminals are on top as viewed from the front of the switch. Solder the leads to the winding terminals and remount the line switch on the shelf as covered in Section 030-705-801.

3.19 AEC Co Pivot-type Relay, Master Switch

Mounting: To replace the coil of a pivot-type relay mounted on the left side of a master switch, it will be necessary to remove the bracket on which the relays are mounted from the master switch frame. Before removing the bracket, however, unsolder the leads from the winding terminals of the coil to be replaced. Remove the relay bracket by loosening the lower mounting screw first, with the 3-inch cabinet screwdriver and then withdrawing the screw with the 6-inch tweezers. Now support the relays with one hand and remove the top mounting screw. The slack in the wiring will now permit the bracket to be turned so that the coil mounting screws are accessible. Remove the coil to be replaced by removing the mounting screw with the No. 565A and 566A offset screwdrivers, or with the 4-inch regular screwdriver, substitute the new coil and tighten the coil mounting screw so that the winding terminals are accessible from the bottom of the master switch. Reassemble the relay bracket on the master switch frame by inserting the top mounting screw through the hole in the relay bracket with the 6-inch tweezers and then tightening the mounting screw sufficiently to hold the bracket loosely in position. Then place the other mounting screw in position with the 6-inch tweezers, tighten both mounting screws securely and then resolder the leads on

the winding terminals. When replacing the coils of relays mounted on the right side of the master switch, follow the same procedure as described above except that when reassembling the bracket on the master switch frame, observe that the stud on the lower leg of the locking arm of the master switch is between the armature arm and the first contact spring of the locking relay.

REASONS FOR REISSUE

1. To reword the information to specify inductors instead of retardation coils (1.01).
2. To add a paragraph covering uses of parentheses (2.02).
3. To add a paragraph covering information for replacing armatures on AEC0 relays of early manufacture (2.04).
4. To reword paragraph 2.05 of the previous section covering use of the asterisk (*) designation (2.07).
5. To revise Fig. 1, 4, 5, and 6.
6. To revise Tables A, B, and C.
7. To revise the list of tools (3.01).
8. To add a paragraph for modifying a No. 207 tool (3.02).
9. To revise the procedures for replacing the residual screw and residual screw locknut (except on 225-type relays) (3.05).
10. To revise the procedures for replacing the armature backstop screw (3.06).
11. To revise the procedures for replacing coils (3.10).
12. To revise the procedures for replacing the residual screw and residual screw locknut on 225-type relays (3.12).